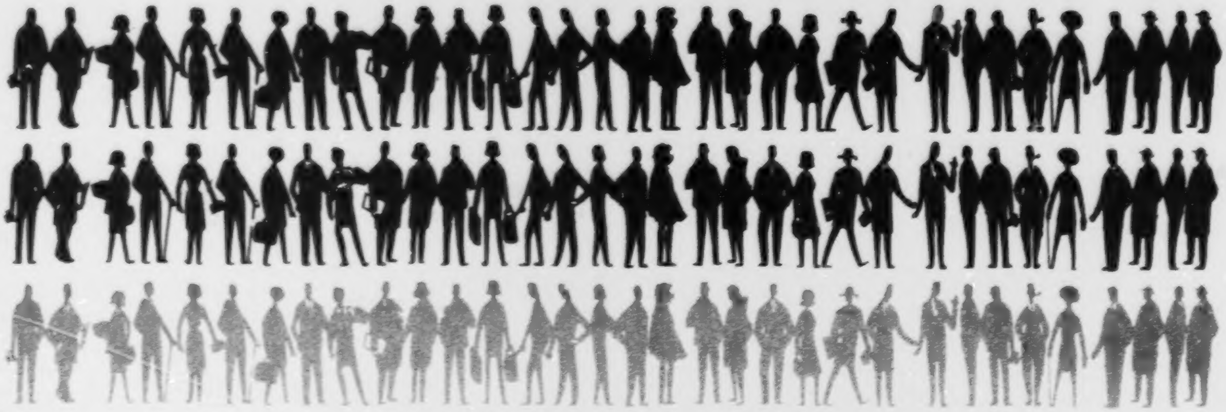
PROGRAM IMPLEMENTATION EXPERIENCES



Editors • Brian Frankcombe • Tarry Grieve • Rob Watson • Walt Werner

BC
E3F73
[illegible]
13

PROGRAM IMPLEMENTATION EXPERIENCES:

CASES FROM BRITISH COLUMBIA

Editors:

Brian Frankcombe
Tarry Grieve
Rob Watson
Walt Werner (General Editor)

Published by

Program Implementation Services
British Columbia Ministry of Education

and

Centre for the Study of Curriculum and Instruction
University of British Columbia

1983

Canadian Cataloguing in Publication Data
Main entry under title:
Program implementation experiences

ISBN 0-7719-9262-9

1. Educational planning - British Columbia. 2. School management and organization - British Columbia. 3. Educational innovations - British Columbia. I. Frankcombe, Brian. II. Werner, Walter. III. British Columbia. Schools Dept. Program Implementation Services. IV. University of British Columbia. Centre for the Study of Curriculum and Instruction.

LB2891.B7P75 . 371.2'07'09711 C83-092203-2

PLANNING COMMITTEE OF THE FOURTH ANNUAL INSTITUTE

Sponsored by

Program Implementation Services

May 16 - 17, 1983

Beverley Buchanan, Director
Program Implementation Services

Brian Frankcombe, Superintendent
S.D. No.60 (Peace River North)

Tarry Grieve, Assistant Superintendent
S.D. No. 24 (Kamloops)

Sylvia Rayer, Coordinator
Program Implementation Services

Bob Taylor, Executive Director
BCCLEA

Rob Watson, Assistant Superintendent
S.D. No.43 (Coquitlam)

Walt Werner
University of British Columbia

Dick Lawson provided technical editorial services for this document.

Copyright © by the British Columbia Ministry of Education

1983

CONTENTS

Page

INTRODUCTION 1
Beverley Buchanan

I IMPLEMENTING TEACHER EFFECTIVENESS PROGRAMS

Staff Programs for Effective Teaching Practices 4
Ron Fenwick

School-Based Staff Development 9
Bob Tamblyn

Involving Teachers in an Effective Teaching Program 13
Jim Connor

The Instructional Theory into Practice Model 16
Garry Hartley and Mary Ann Lyall

II IMPLEMENTING WRITING PROGRAMS

Teacher Initiated Writing-As-A-Process 21
Jenny White

Writing to Reading in the Primary School 27
Margaret Wreggitt

The Young Writers' Project 31
Linda Kaser, Alan Warburton, Bryan Eyjolfson, Jane Hunter,
Frances Lorenz, Mary Ann Mikituk, and Lindsay Watson

A Writing Survey in Secondary Schools 40
Sebastian Nutini and Joseph Ranallo

Two Process Writing Programs 43
Howard Cross

III IMPLEMENTING SPECIAL NEEDS PROGRAMS

Integration of a TMH Program into a Secondary School 49
Hal Lindsay

Combining Challenge, Creativity, and Commitment 52
Bernie Bowker

A Secondary Learning Disabilities Program 56
Bev Saumier, Alfie Smaback, and Shirley McBride

Enrichment for the Gifted through the Library 60
Ron Kilbey and Anne Hill

Page

IV IMPLEMENTING MICROCOMPUTER PROGRAMS

One Computer in an Elementary School 64
John Munson

Computer Education at the Junior Secondary School 71
Barry Underwood

Micros in the Senior Secondary School 75
Jack Block

Managing the Microcomputer: A District Plan 81
Barry MacDonald

V IMPLEMENTING PHYSICAL EDUCATION PROGRAMS

Daily Physical Education: A Principal's Perspective 84
John Parry

Daily Physical Education: A Consultant's Perspective 89
Peter Moody

VI IMPLEMENTATION CONCERNS

Monitoring Curriculum Implementation 98
Harry Hufty

Managing Implementation in a Small District 105
Elizabeth Welch Wilson

Elementary Department Heads and Program Leadership 109
Mike Mooney and Dave Smith

A District Learning Assessment Program 114
Tom Wheeler

CONCLUSION: UNDERSTANDING IMPLEMENTATION EXPERIENCES 120
Walt Werner

CONTRIBUTORS 125

INTRODUCTION

Beverley Buchanan
Program Implementation Services (Ministry of Education)

Program Implementation Experiences: Cases from British Columbia grew out of an ongoing professional development project to build a network of district and school-based educators interested in extending their expertise in planning effective implementation of new programs. This project began in the summer of 1980 when two week-long summer institutes were held. During implementation institutes in the subsequent two years, over 120 professionals continued intensive study of factors contributing to effective planning for educational change.

In the early years of developing this network, implementation institutes relied heavily on outside resource persons from the United States and other parts of Canada. The growing experience and expertise of professionals in British Columbia made it possible for the 1983 Program Implementation Institute to rely exclusively on local resource persons. For the first time, district and school-based educators from every region of the province were invited to present sessions at the institute and to write reflective case studies documenting the success of implementation plans and processes.

Hence, the purpose of this book is to share a sample of what is being learned about the plans and processes actually used by B.C. educators when implementing program changes. Through examining and discussing these cases, district and school staffs may more effectively build on the experience of others when formulating their own plans.

The publication is by no means exhaustive. The institute planning committee and editorial team made four decisions early in their deliberations:

- province-wide representation from districts and schools of varying sizes would be essential;
- classroom, school, and district perspectives on program implementation would be sought;
- the focus would be on implementation plans and processes rather than on specific content of the innovative projects;
- major themes of interest to institute participants would be selected as the vehicle for discussing program implementation strategies.

A survey of the implementation network group resulted in the selection of six themes for exploration. This document is organized around these themes: effective teaching practices, programs to improve written expression, improvements in programs for students with special needs, the instructional use of microcomputers, daily physical education, and special implementation concerns.

Following the selection of these themes, invitations to present an institute session and to write about their implementation experiences were extended to teachers, principals, and school district personnel from all regions of the province and all levels of the K-12 school system. The response was overwhelming.

Contributors received guidelines for developing their case studies. It was suggested that questions such as the following be considered:

- What stimulated the initiation of the proposed change?
- How were implementation plans developed?
- To what extent did the implementation plans give attention to key roles, time needed, human and material resources required, professional development needs?
- What implementation procedures were used?
- What were the major strengths and weaknesses of the procedures?
- What were the unanticipated outcomes?
- If doing the project again, what would you change to make the implementation more successful?

From these guidelines emerged a rich diversity of articles. Editorial work has preserved the freshness and integrity of the professional contributions and individual writing styles. Communicated is each writer's interpretation of what implementation means in their professional environment. Represented are many different perspectives and kinds of thinking about program implementation. In spite of this diversity, there are unifying threads:

- The common goals for implementing programs are to increase student achievement and to create greater interest in and motivation for learning.
- Those who have contributed have been deeply involved in the implementation processes, but no contributors are offering their plans and processes as definitive for others. As one writer puts it, "We are still learning".
- Common to the implementation plans and processes themselves is teacher involvement, an active role for leaders and administrators, and increased job satisfaction.
- The concept of "linking" and building professional "bonds" between colleagues is strong. Effective programs are school-based but are also interdependent with others in the school system.

- There is growing recognition of the role that students play in program implementation. Although implementation plans and activities are different in elementary and secondary schools, contributors at both levels acknowledge the momentum students can give to a program change. A secondary teacher states, "Student interest and enthusiasm provide the thrust to continue." From a small elementary school, a teaching principal comments, "Probably the best impetus comes from the children. Success is obvious with immediate rewards. Everyone experiences success...."

- The reader gets a sense of quiet but "infectious" enthusiasm about the good things that are actually happening. These programs are demonstrated and observed, not merely talked about as possibilities.

Although we still have much to learn and to teach one another, this document is evidence of extensive growth during the past three years in breaking down the "mystique" about program implementation. The magnitude and complexities of implementation challenges, while often underestimated in the planning stages, have not deterred people from initiating and sustaining educational change for the benefit of students.

Though by no means comprehensive in describing change efforts underway in schools, this document contains a sample of implementation experiences in both elementary and secondary schools of all sizes from every region of British Columbia. The planning committee for the 1983 implementation institute is appreciative of the many educators who willingly and enthusiastically agreed to enrich the experience and knowledge of their colleagues. Their combined efforts in the first publication of this kind will advance understanding of program implementation for professionals throughout the province and beyond.

I

IMPLEMENTING TEACHER EFFECTIVENESS PROGRAMS

STAFF PROGRAMS FOR EFFECTIVE TEACHING PRACTICES

Ron Fenwick
West Vancouver School District

The Innovation

West Vancouver's Effective Teaching Program is best described as a planned attempt (within the district's overall professional development program) to improve teaching strategies which relate to promoting skill development in students. The program includes discussion of current research, development of teaching behaviours, and classroom follow-up.

Planning for the program began in the fall of 1979 in response to a need expressed by school-based administrators. They wanted to know more about effective teaching practices, particularly Madeline Hunter's Instructional Theory into Practice Model (ITIP).

Central office administrators organized a weekend workshop with Ernie Stachowski who leads a modified ITIP project in Long Beach, California. Trustees and members of the executive of the local teachers' association also attended. It became apparent that we had both the trustee support and teacher interest to embark on a program linked with Long Beach.

A planning committee of central office staff, principals, and teachers was formed. The committee soon realized that it was necessary to establish overall goals for professional development of which ITIP would be only a part.

Visits to teaching centres were made in Long Beach, Bellevue, and Edmonds by practicing teachers who were involved from that point in the planning process.

The board adopted the following general goal for professional development:

> "The goal of the professional development program for teachers in West Vancouver is to promote professional growth by:
>
> 1. providing resources for individuals to attend short term workshops on topics of their choosing;
>
> 2. providing resources for individuals and groups to:
>
>   (a) become familiar with curriculum changes;
>   (b) develop curriculum materials for existing or new programs;
>   (c) develop and refine instructional, management, and evaluative techniques.

3. providing resources for delivery of professional development activities for specific needs identified by individuals or groups;

4. encouraging all staff members to develop an individual professional growth plan."

The board also totally funded the Effective Teaching Program which included: release time for teachers to attend workshops, the costs of the major presenter (Stachowski), and four teachers to be trained as presenters and to serve the "follow-up" needs of the program on a part time basis (at .25 each). These "trainer teachers" became the heart of the planning committee which met weekly, primarily to adapt the Long Beach model to meet local conditions.

During the 1981-82 school year, two groups of forty teacher volunteers received instruction on basic ITIP methodology and were assigned to a local presenter for classroom follow-up, feedback, and small group meetings.

In the spring of 1982 the planning team recommended to principals that the direction of the program change in these ways: that the program become school-based, that local presenters be used, and that instead of delivering a set curriculum the program be directed towards teaching practices selected by the staff.

All recommendations were adopted. However, by the fall of 1982, the ministry's restraint program came into being causing two severe curtailments in the program: the loss of non-instructional days and the loss of time for the local presenters.

As a result, the program is now in the embryonic stage in only four of thirteen elementary schools.

One other major shift has occured in the program: not only is the staff able to select from an array of effective practices, but they may also develop their own. All four schools have elected to develop their own program (see Appendix for one school's development).

Implementation Procedures

The planning committee based much of its approach to implementation on Michael Fullan's work, particularly to what he called "determinants".

A. Pre-History

It had been our experience that the most successful innovations in the past have included classroom follow-up by a respected colleague chosen for the task, operating from the central office. Our past also reminded us that the teacher involved in the change had to be a volunteer. These two factors are essential to our program.

B. Content and Role

Because the content is either chosen or developed by the staff, all staff members practise the same content at the same time. A slight role conflict must be overcome during the practice sessions inasmuch as the teacher is asked to choose for feedback among a school administrator, a presenter, or a "buddy" from the staff.

C. Clarity of Goals and Means

The goal is to improve classroom instruction, particularly by understanding and by practising those teaching behaviours which are likely to improve skill development. The means to achieve the goal are in the hands of the staff committee, although the recent restraint program has curtailed the school's ability to pursue professional development activities.

D. Inservice is Linked to Implementation Problems

The planning committee continued to meet on a weekly basis. All implementation problems were discussed and solved. Solutions were discussed with the staff concerned and major difficulties were dealt with at the superintendent's meetings of principals.

E. Regular Small Meetings

Aside from planning meetings, the trainers met with the staff committee (or whole staff in small schools) on a regular basis. Since the direction of the program was in the hands of the staff committee, its concurrence on activities was essential. Also, since the whole staff was working on the same behaviour at the same time, a great deal of informal discussion took place without the leadership of the trainers.

F. Local Adaptation

The program has undergone a great deal of change since its inception. Further, each participating school represents an adaptation of its own. No two school programs are exactly the same. Different schools focus upon different teaching strategies which, in turn, require different classroom follow-up procedures.

G. Administrative Support

Strong support comes from the superintendent, the board, and the building administrators. Currently, much of the support has been more psychological than financial, although we are confident that the program will have a high priority when the financial situation improves.

H. Overload

All innovations run the risk of overload that occurs when too many simultaneous changes are taking place or when the innovation interferes with the tempo of the school. Every school completes a professional development needs analysis before any commitment to the program is made. Once a commitment is made, the program is then fitted into the school's time frame, avoiding high-demand times such as concerts, reporting periods, and outdoor school.

I. Realistic Time Frame

The time frame is set by each staff committee. It is suggested that staff members develop and practise only one teaching strategy during a school term. Only when they are comfortable with one behaviour, should they move on to another. The pressure is self-imposed; the pace is never increased without a staff decision.

Conclusion and Evaluation

It would be an error to conclude that West Vancouver has an Effective Teaching Practices Program firmly in place. First, we have concluded that no one program has the potential of serving all needs, that a needs program by its very nature must be both fluid and flexible. Second, the needed resources must be provided continuously over the life of the program. The present political and economic climate is counter-productive to what we are attempting to accomplish.

We are, however, convinced that we have established a firm theoretical base which includes these notions:

1. A central planning committee which is perceived as a "servant" not a "master";
2. Each staff is, in itself, its own best resource;
3. Teachers are best served in their own classrooms with their own students;
4. Teachers must control the planning, development, and implementation of their own professional development.

Finally, school trustees must recognize that they have a major responsibility in the renewal and revitalization of their employees. Institutions that are organized for preservice training cannot fulfill the individual needs of teachers: the functioning school is the superior setting. School boards must be made to see that their support, both financial and psychological, for programs such as ours will have pay-offs for students.

Appendix

The teachers at "Darwin Elementary School" believe that increased "time on task" or "engagement rate" will enhance skill development. To increase "engagement rate" they suggest that:

1. The teacher must have clear objectives -- long-term, weekly, and daily.
2. The daily objectives and the teaching method should be made known to the students.
3. The students should enjoy a "high level of success" which requires teacher guided practice at the appropriate level of difficulty.
4. The teacher should establish, by teaching and reteaching, classroom routines or procedures which reduce non-academic time. These routines help to get more teaching time out of the allocated time. Teachers should also establish a standard method of obtaining the students' attention.
5. The teacher should link each new lesson with previous lessons.
6. There should be an attempt made to provide a purpose for learning a specific skill.
7. The teacher should communicate to the pupils that the task at hand is important to the teacher.
8. (a) The lesson should be briskly paced. The teacher uses a "quick fire" questioning technique.

   (b) A teaching routine should be established apportioning the allocated time to deal with homework, oral work, reading, and writing.
9. Seat work instructions (procedures) should be well known (part of the lesson) before students begin their work (homework). "What did I ask you to do?" "How are you to do it?"
10. Motivators (attention getting devices) should be employed.

SCHOOL-BASED STAFF DEVELOPMENT

Bob Tamblyn
Kamloops School District

In 1979 the staffs of David Thompson Elementary and Dallas Elementary began staff development that was both effective and unique. It encompassed factors that research has demonstrated are successful in promoting change. The impetus for change did not derive from outside the school. There was, in fact, an almost fortress atmosphere that surrounded this project and this atmosphere both facilitated its impact and provided frustration for its growth. The purpose of this study is to provide a background of the project, a discussion of its implementation, and a presentation of some conclusions and implications for future staff development projects.

The Project

The impetus for change derived from teachers on each staff, and continuation for this project incorporated five features:

1. It is derived from the needs and desires of the staff.
2. The vehicle proved to be both highly practical to staff and conceptual in its depth.
3. The administration was perceived to be fully involved in the project as supporters and facilitators, but not as initiators.
4. The project was adapted as time went on to adjust to the individual needs of each teacher.
5. Teachers were provided with opportunities to receive non-threatening feedback on their efforts, their growth, and any areas needing improvement.

In the fall of 1978 a group of primary teachers heard Madeline Hunter speak at their annual conference. Staffs proposed, with the full support of the building administrators, that funds be secured to go on retreat with Dr. Hunter. The impetus of this initial contact and retreat provided the change that is continuing.

As the project grew, both principals maintained a posture of staff initiated change. Teachers were encouraged to take leadership roles in implementation, to provide input in terms of content, and to set objectives for growth. Staff were motivated to continue the change, as it clearly related to their perceived needs in the classroom and within the school.

Initially, implementation affected the school climate and classroom tone. Teachers were rewarded through job satisfaction, success in performance, and a sense of professional competence. The increase in job satisfaction resulted because teachers saw improvement in both the affective and cognitive behaviours of students. At first, teachers used Hunter's theory of instruction to increase students' independence; teachers were able to spend more time instructing and less time managing student behaviour. With increased energy and time for teaching, staff turned their attention to the quality of their instruction. Staffs were encouraged to present inservice topics, observe each other and give feedback, and attempt to develop a model for future inservice. For the first time there was a program that was applicable to all teachers regardless of grade or content taught. This program was not something laid on at the district or ministry level; rather, it was developed by and for teachers. By studying and working together on common interests and objectives, there developed a cohesiveness that worked as a catalyst for significant change in instructional practice.

As teachers' instructional options increased, so did success for their students. Reinforcement for continuation was cyclical: teachers reinforced each other and as student achievement rose, parents reinforced the teachers who in turn were motivated to become even better at instruction. A sense of purpose, accomplishment, and success permeated the schools.

The role of the administrators was complex. Principals worked at focusing, guiding, and articulating the needs of the staff. Daily physical education, gifted and talented programs, music programs, and French development were just a few examples of what schools were asked to develop. A balance had to be maintained by the principals so as not to let these legitimate concerns weaken the school-based project. The principals were faced with turning away and screening some of the outward pressures on the school.

The other problem principals faced was the tension between evaluation and supervision. On the one hand they knew it was important for people to receive relevant input on their teaching; on the other, as teachers were trying to change their techniques, rating their ability to implement could create suspicion and anxiety, which would have been counter-productive.

To overcome this tension, principals delegated the helping-supervisory role to other staff members. Team observations and feedback sessions became common. In David Thompson, the vice-principal started a structured series of visits to provide feedback. Since he had no report-writing duties, supervision was disinfected of this evaluative tension. Having completed a course on clinical supervision, he trained other staff to lead workshops and provide feedback to each other. As new members came on to staff, individualized non-threatening feedback became an essential component of the project's continuation. There was pressure to provide input for the more knowledgeable staff members and at the same time to develop skill within the new staff; by teaming experienced with less experienced staff, we were able to capitalize upon this diversity.

It was not possible to bring in outside facilitators on a frequent enough basis to provide for the growing, diverse needs of teachers. At the same time, in other district schools, interest was growing as to "just what those guys were doing". Requests to observe the schools and to draw upon school staffs for workshops increased. The enthusiasm of the two staffs and the drain upon the schools' resources resulted in increased pressure on district office for resources and for recognition. These requests fell on sympathetic ears as district office personnel began to take a keen interest in the project. This pressure resulted in the district resource team's offering on-going staff development to schools.

Instructional Practice

There is a base-line set of teacher behaviours that has proven effective; it is not dependent on grade, age, program, or subject interest. The experience in Kamloops schools points to the impact that this focus for inservice can and does have. By implementing a project that applied to the whole staff, a sense of cohesiveness and common interest bound the staff. Teachers found that by learning instructional skills they were being processed through the same experiences they hoped to provide for their students. The more they worked through the instructional model, the clearer it became that their own learning and the developmental plan could be correlated. Following is an account of the set of instructional skills and how we found they applied to staff development.

"Teaching to an objective" implies that teachers can gear all of their input, questions, activities, and responses to an attainable goal. For a staff, this may mean that extra interferences, such as other inservice programs, are kept to a minimum until the new content is mastered. Our objective was to increase teacher options in instructing and thus produce a gain in student achievement. We were careful to avoid becoming diverted by other projects. For example, at one stage we started our year two days later than other district schools so that we could focus teachers on the on-going development. This strategy, of course, required a strong resolve and a clear understanding of what we hoped to accomplish.

Teachers check students' cognitive entry levels and aptitudes by diagnosing their abilities in a specific learning. For example, a teacher do not teach paragraph writing before students have mastered a sentence. We also found this principle of "determining the correct level of difficulty" to be important in our staff development. We were learners of instructional theory; because each teacher possessed strengths and weaknesses, staff development had to take account of this diversity if all of the staff were to continue growing.

By monitoring our own staff development program we found that often we had to re-teach skills; we could not assume that adults master a skill after one exposure. Since our goal was substantive change, we relied heavily on repeated formative evaluation of teacher performance.

Teachers have for many years employed a variety of techniques to encourage student learning. Some were more successful than others. Similarly, we found that teachers had to work hard to master new content and methodology. To make this consistent effort, staff members had to be motivated and reinforced for their efforts. After some time many teachers moved from extrinsic towards intrinsic motivation as they saw growth in student achievement.

Summary

In summary we end with a list of concepts that one might consider when implementing a change:

1. Leaders of staff development need to have clearly defined goals.
2. Staff diversity and individual needs should be considered and planned for.
3. Providing individual, specific, and non-threatening feedback should be incorporated in staff development.
4. Staff should be involved in the development of the project, as their involvement to greater commitment and motivation.
5. Means of reinforcing staff may be provided through continued opportunities for growth.

We maintain school-based inservice into which staff choose to opt. In this way implementation takes into account teacher involvement. Approximately 10% of Kamloops teachers have gone through courses on instructional practice.

Bibliography

Bloom, Benjamin. Human Characteristics and School Learning. Toronto: McGraw-Hill, 1976.

Cummings, Carol. Teaching Makes a Difference. Snohomish, Wa.: Snohomish Publishing Co., 1980.

Hunter, Madeline. Improved Instruction. El Segundo, Ca.: T.I.P. Publications, 1976.

Rosenshine, Barack. Teaching Functions in Successful Teaching Programs. Unpublished article, University of Illinois, 1982.

INVOLVING TEACHERS IN AN EFFECTIVE TEACHING PROGRAM

J.H. Connor
Maple Ridge School District

In September 1978, the first new elementary school built in over seven years opened in the Maple Ridge School District. Its initial enrolment of approximately 350 has now grown to some 437 pupils. The principal and staff immediately began working to make the school an effective learning centre for students by setting long term and short term goals.

The first year was devoted to developing staff awareness of each other, the pupils, and the public. The year ended by conducting a parent perception[1] survey. Results were positive--we had earned public confidence!

During year two the staff focused on the coordination and strengthening of the curriculum being offered in the school. Primary and intermediate teacher teams were established to facilitate these processes. Plans for the next three to five years were, individually and collectively, to continue the development of the school with increasing attention being paid to improving teacher competence through study and practice of those elements of instruction that researchers have indicated are instrumental in promoting successful student achievement in schools. We wanted to make sure that our teaching was based on sound principles and that we were performing our task to the best of our ability.

That same year, the local teachers' convention scheduled an all day session entitled "Madeline Hunter's Instructional Theory into Practice". The complete staff attended this session, which unfortunately did not go well. This encounter produced a setback, and in addition, teachers were heavily involved in district inservice related to the implementation of a program called French Exposure, a new program in music, and other curriculum modifications. The staff was suffering from implementaion overload! The Effective Teaching Program became low key, consisting largely of an occasional sharing of documents and of small informal group discussions.

During 1980-81 three non-instructional days were scheduled for professional development on "Elements of Effective Instruction" as outlined in materials by Ernest Stachowski of Long Beach Unified School District (California). Led by the principal, the workshops focused on these elements: 1) select objectives at the correct level of difficulty, 2) teach to the objective, 3) monitor the students and adjust the teaching, and 4) use the principles of learning. The workshops were spaced to allow teacher interaction and practice time. Carol Cummings' book, Teaching Makes a Difference[2] was supplied to each staff member for personal use as a primary reference. Books prepared by Hunter were made available, and reference made to writings by Rosenshine, by Bloom, and by Joyce. The ASCD videotape "Teacher and School Effectiveness" was employed to stimulate discussion.

In-school efforts were enhanced during the fall of 1981 when the district embarked on a professional development program in which the superintendent and the trustees made the professional growth of teachers their first priority for the year. Each principal selected two classroom teachers and a learning assistance teacher to attend a series of four one-day sessions under the leadership of Carol Cummings and Cliff Nelson, consultants from the State of Washington. Strong teachers were chosen by principals to give status to the program and to dispell any idea that an Effective Teaching Program was another attempt to improve weak teachers. Ernest Stachowski led another district workshop which was designed for school principals and one other member from each staff. Following this session a district steering committee was established drawing from teachers and administrators who had attended either of the workshops. This committee developed a four-phase plan which included short courses to be offered in the district during the summer of 1983. Despite budget restraints the superintendent is determined to proceed with the project; he has the complete support of the board in this regard.

The principal and teachers who attended the district sessions became this school's project committee, and plans were made to incorporate an element of effective teaching in each staff meeting with committee members assuming leadership roles in these one-hour sessions.

Each committee member has reached out beyond the workshop circle to draw in a colleague whose only exposure has been the school-based sessions. Opportunities have been provided for committee members and others to visit each other's classrooms, to share implementation strategies, and to develop skills of observation and analysis.

The principal assists growth by gathering data during observation sessions. The post-observation conference follows the principal's analysis of the data using Hunter's "Elements of Instruction"[3] as the framework for diagnosis. The use of an "Interactive Teaching Map" developed by Cummings and Kerr[4] aids both teacher and principal in the analysis. The principal's role must include being a catalyst for change, a facilitator, an encourager who demonstrates a commitment to the project.

This program has helped us to focus on helping students to learn or achieve in an effective, efficient, and humanistic environment. Parents have been informed of the goal to improve professional competence in the classroom. Feedback indicates that we have public support.

The approach we have been using, which might be described as a "quiet" implementation, has not created any visible concerns among staff members. It has, on the other hand, positively affected what is going on in most classrooms. Supervision of instruction by the principal is seen as teacher growth rather than as strict evaluation. Teacher-principal interactions during pre- and post-observation conferences are mutually productive.

During the evaluation of our professional progress and of our implementation, we found a need to provide a more effective practice-observation-feedback model. Regularly scheduled observations would give teachers feedback early enough to be useful, but a rigid schedule might create a negative effect. Both the use of video as a data gathering instrument for self analysis and more opportunities for teacher-teacher interaction would have been helpful.

Footnotes:

1. As outlined in the Elementary Schools Assessment Booklet, British Columbia Ministry of Education.
2. Carol Cummings. Teaching Makes a Difference. Edmonds, Wash.: Teaching, 1981.
3. Madeline Hunter. Improved Instruction. El Segundo, Ca.: T.I.P. Publications, 1976.
4. Carol Cummings and Douglas Kerr, Interactive Teaching Map. Washington: Centre for Law and Justice, University of Washington, 1980.

THE INSTRUCTIONAL THEORY INTO PRACTICE MODEL

Garry Hartley and Mary Ann Lyall
Prince George School District

Objectives of the Innovation

The goals of the project were to develop further teacher effectiveness in the promotion of learning, and to develop further administrator knowledge of teacher effectiveness and the skills of clinical supervision. Because principals are the key support persons for maintaining and improving instruction, their competencies in the "Elements of the Teaching/Learning Act" and the skills of clinical supervision needed to be developed first so that they in turn could help to develop effectiveness competencies in staff members.

Context of the Innovation

Prince George School District encompasses 20,000 square miles, has 57 elementary (13,060 pupils) and 11 secondary (7,270 pupils) schools.

The new superintendent of schools and the new coordinator of professional development, both appointed during the 1976-77 school year, gave professional development strong support and leadership. Despite some changes in personnel, these factors have been continued in the district up to the present time. In the spring a meeting of key principals was called by the professional development branch for the purpose of obtaining input on staff development needs. Both teacher effectiveness in the learning process and clinical supervision were among a number of topics discussed.

As a result of this meeting, three principals attended in May 1977 the North-West Zone Conference of the B.C. Principals' and Vice-Principals' Association which highlighted presentations by Ernest Stachowski of Long Beach Unified School District (California). In October 1978 another district representative attended a conference of the National Association of School Executives where Stachowski presented an overview of the "Instructional Theory into Practice Model" (ITIP). The district's representative to this conference recommended that the district "examine the possibility and feasibility of initiating a comprehensive training program in the skills of instruction and in clinical supervision". Subsequently, the board approved this recommendation.

The Innovation

The innovation resulted from a concerted effort on the part of the district's professional development branch, the personnel department, the curricular services department, a cross section of school-based administrators, and the superintendent to plan and implement a teacher effectiveness training program for teachers and administrators.

The project was to address those skills and knowledge areas that are identifiable and controllable by teachers in promoting optimum learning in the classroom. In addition, clinical supervision skills would be addressed in relation to these essential elements of teaching and learning. It was envisioned that all teachers and administrators would have the opportunity to participate in this project at some point.

The initial plan was to commission Stachowski to present four two-day inservice workshops to thirty-five school and district administrators. The workshops were scheduled for November/December 1979 and January/February 1980. The administrators, it was thought, would then be equipped to provide instructional skills leadership in their schools. In addition a nucleus group from these participants would provide inservice to other administrators and teachers in the district in subsequent years. Contractual commitments were made with Stachowski for the series of four two-day workshops for administrators (November 1979 through March 1980).

Implementation

Implementation was undertaken over a four year period:

Year 1 (1979-80)

- Four two-day inservice sessions for 35 administrators by an outside consultant;
- School follow-up initiated within schools;
- Six individuals (four administrators, the current and past consultants of professional development) attended a one-week summer workshop at Seattle Pacific University on the implementation of the "Instructional Theory into Practice Model".

Year 2 (1980-81)

- A one-day review by an outside consultant of previous workshops in the district, followed by four two-day inservice sessions;
- A classroom teacher attended a four-week summer course presented by Madeline Hunter at the University of California at the Los Angeles Laboratory School (the in-district trainer);
- Two other classroom teachers took ITIP training at Long Beach, California;
- Further school-initiated follow-up occurred.

Year 3 (1981-82)

- The in-district trainer assisted the outside consultant in presenting four two-day inservice sessions in the district (more of the thirty-five participants were classroom teachers than in Year 2);

- The in-district trainer presented ITIP workshops to individuals and to school staffs after hours, on professional development days, and through teacher-initiated classroom visitations;

- After local inservice and attendance at ITIP short courses in Seattle, two assistant-coordinators of program support services were appointed;

- On invitation the assistant-coordinators and the in-district trainer presented workshops in schools and initiated application of the ITIP Model (736 teachers and administrators were contacted);

- Seven participants in local workshops attended a summer short course at Seattle Pacific University;

- School follow-up increased and included planning of longer-term projects using ITIP.

Year 4 (1982-83)

- The in-district trainer assisted the outside consultant in presenting four two-day inservice sessions for the district (thirty-five participants, of whom twenty-five were classroom teachers);

- Increased use of the ITIP Model in schools, including administrator use in report writing.

Some resistance by teachers and administrators continued to occur from year to year to the acceptance of the inservice being offered. This resistance stemmed primarily from those who were philosophically opposed to the ITIP Model, or who felt that the district was undertaking yet another "flash-in-the-pan" idea, or those who had not had the opportunity to become involved in the inservice.

A variety of approaches incorporating the ITIP Model and clinical supervision are currently employed in the district and no single approach has been mandated. The approaches include one-to-one support on request, school staff inservice on request, zone inservice on request (several school staffs combined), and school department inservice.

Program Strengths

The ITIP Model and clinical supervision have served as a focus for teacher effectiveness training in this district since the program's inception in 1979. In examining these four years of implementation, several strengths can be identified:

- The general acceptance of the notion that the principal is the key person in effecting change in staff behaviour.

- The initial thrust for inservice came from the superintendent of schools. Although the superintendent changed, the coordinator of professional development changed, and the district underwent a reorganization resulting in changed roles and responsibilities, commitment to the project was consistently maintained by key individuals.

- Adequate financing was maintained to allow for continuity of implementation.

- Because of his considerable influence in "setting the stage" for the project, the outside consultant was chosen with care. The need to retain him over a long period was recognized early. The presentor was key to the innovation's being accepted.

- The project was not prescribed for all teachers and administrators in the district. Although requiring time in terms of affecting all teachers and administrators, it allowed for flexibility in meeting emergent needs and allowed for a relatively positive attitude throughout the district.

- Once the majority of principals and district administrators had attended the inservice series, key teachers were encouraged to participate in the inservice. This allowed for the development of a principal/teacher professional bond resulting in unanimity of purpose.

- From the outset of the implementation there was the intention to develop a nucleus of presenters who would assist with the future implementation of the model.

- The district provided a part-time position for a "trainer" in the "Elements of Teaching/Learning Act" and skills of clinical supervision.

- The timetable for workshops permitted teachers to practise their skills in their schools prior to attending the next session.

- The district funded interested teachers and administrators to attend advanced short courses on the ITIP and clinical supervision. This developed in-depth expertise that manifested positive changes within schools.

Program Shortcomings

An examination of the district's program over the last four years reveals shortcomings in both the planning and implementation stages of the innovation:

- A thorough needs assessment was not used to substantiate the need for this innovation. However, informal discussions were held with teachers and administrators. A key group of administrators was consulted.

- Because a steering committee was not established to oversee the implementation, much of the planning, decision making, and organization were left to a few individuals.

- Because the magnitude of implementing this program was not fully appreciated in the planning of the project, the district still does not have a long range implementation plan that extends the program to the rest of the district's teachers.

- School administrators were not informed that the major focus for teacher effectiveness training for a number of years would be the "Elements of the Teaching/Learning Act" and skills of clinical supervision.

- Teachers with less than satisfactory evaluation reports were sent to the workshop, resulting in some negative attitudes toward the program. This practice denied access to other interested candidates.

- The in-district trainer's role and responsibilities were not adequately delineated, nor communicated clearly to schools.

- There has been no clear articulation to school administrators of how to transfer the information and skills acquired in the four two-day workshops to their staffs. At present a variety of approaches are operating with varying success.

II

IMPLEMENTING WRITING PROGRAMS

TEACHER INITIATED WRITING-AS-A-PROCESS

Jenny White
Queen Charlotte School District

The Evolving Plan

The writing-as-a process teacher initiated inservice has evolved in the Queen Charlotte School District over the past two years. In April 1981, a summer writing institute sponsored by the Ministry of Education and Richmond School Board nurtured the interest. Many months of trial and error followed as I experimented with new ideas and methods within my classroom. When success came to my students, I shared these successes with parents, district educators, and trustees.

Subsequently, I found a colleague who gave me the opportunity to try some ideas with older students. When these ideas proved useful at that level, I shared them at a follow-up session of the writing institute in February 1982.

A plan was then organized with district staff detailing how best to spread the word. We chose a series of four to six sessions at interested schools; four to ten months lay ahead of continuous sessions with teachers who would initiate topics of concern and take over leadership of school-based inservice.

The Spark--A Superintendent Speaks

In a casual conversation with a superintendent, he told me of a Richmond teacher he admired. I was impressed by his enthusiasm and surprised when I received a note from him attached to samples of written work this teacher's students had produced. Not long afterwards I received a memo describing a summer writing institute to be held in Richmond. I signed up hoping to meet this special teacher. I did meet her and many others of like quality in an enriching professional inservice.

KEY POINT: Tell fellow educators about the inspiring and great teachers you know and admire, especially if you are an administrator.

Ignition--Richmond Teachers Speak

I took the week-long written expression summer institute in 1982 with forty-five teachers from northern and eastern school districts. The session was primarily organized and directed by teachers, and the week of time allowed us to cover ideas in depth.

The inservice model used was effective:

a. Present the theory--Explain the writing process and familiarize with key terminology.

b. Give examples--Lots of student work on display.

c. Demonstrate the theory--Use videos to show how individual teachers teach the writing process.

d. Practise in classroom setting--"Don't take our word for it", the organizers said, "try it with your own students."

e. Follow-up session--Meet six months later to report on the success and failure of the new ideas.

KEY POINT: Initial inservice should involve practicing teachers. Inservice is best if it can present theory, give examples, demonstrate technique, and provide time for classroom practice and follow-up feedback sessions.

Primary Burn--"I Teach"

Story writing was postponed for a few months with grade one, but I did introduce the newly discovered Scholastic Big Books. We read Big Books from October to June of that school year. We weren't entirely pleased with the few published examples we could afford, so with the help of some artistic parents we wrote, illustrated, and published our own big reading books.

By January my students were writing stories. I used the Richmond ideas and taught the writing stages--especially the pre-writing sequence with picture study, discussion, and vocabulary development. My students enjoyed writing and presenting their stories; I loved their results and their positive attitude. Would the ideas function in an older grade? I enlisted a friend who taught grade 6/7 to help answer the question.

KEY POINT: Provide sufficient time (three to ten months) for teachers to test inservice generated ideas in their own classrooms. They must become convinced through actual classroom success that the ideas work, for only then can the ideas be shared effectively.

Secondary Burn--Team Teaching

The grade 6/7 teacher and I tried two models of instruction in introducing the writing-as-a-process ideas to her class. In the first series of lessons we switched classes; she taught my grade ones while I introduced her students to the stages of writing. I made some mistakes in teaching students to edit and proofread, but picked up important strategies which I could use in future lessons. After the teacher and I discussed writing ideas, she tried several in the months that followed. However, she made no significant changes in her basic writing program.

The second set of lessons consisted of my demonstrating the technique with the classroom teacher present and involved with the lesson. This second model was the more effective in changing the teaching patterns. A supportive administrator covered my class while the grade 6/7 teacher and I taught a series of lessons based on "The Most Important Thing About Me". Some of the highlights of the team-taught lessons were:

- We discussed important aspects of our lives (including teachers).
- We jotted down these ideas in note form.
- We identified the most important aspect of ourselves.
- We (teacher too!) drafted a paragraph using the suggested pattern sentence.
- We video taped the editing and proofreading sessions.
- We increased our enthusiasm about writing.
- We became braver about sharing our writing with peers.
- We sat down with the school secretary, while she typed our paragraphs for publication.
- We published a book of photos and paragraphs The Most Important Thing About Me.
- We sent the book home for our parents to see (their comments were positive and encouraging).

The effect upon the grade 6/7 teacher was notable. We planned the lessons together, and I explained in detail the writing process. After the lessons we discussed how she could make changes in her weekly writing program to incorporate some of these new ideas. She came to me several times in the ensuing weeks to let me know, "It's working!" I managed to spread some of the ideas by demonstrating and coaching. When a colleague could visualize the methods and ideas, she could effectively incorporate them as a basic part of her program.

KEY POINT: Provide time for coaching or demonstration teaching by peers familiar with inservice techniques. As needed, organize relief time or covering of classes to enable one teacher to demonstrate for another.

Orbit--Publicize Your Success

I was invited to report to our local school trustees on the Richmond Writing Program. This occasion provided me with a perfect "presentation" opportunity for my students to share their writing and at the same time for me to illustrate the writing process to parents, district staff, and trustees.

Local school board meetings are usually sparsely attended affairs. Our night over twenty-five parents showed up to watch and share their kids' experience. The local newspaper, The Queen Charlotte Observer, reported the events in the edition of February 18, 1982:

> SMALL CHILDREN BRING EDUCATION HOME TO SCHOOL TRUSTEES
>
> Queen Charlotte School Grade 1 teacher Jenny White and her small charges brought learning home to the Board of School Trustees at their February meeting. Mrs. White brought her entire class and their parents together before the School Board members and staff to demonstrate the teaching and learning of reading and writing skills. Using techniques acquired in education workshops and seminars for elementary teachers, Mrs. White demonstrated in brief summary the steps she used to organize small students to write reports and essays. The children had brought with them their "published" reports on "Bears". Each child had the opportunity to bow the ear of an individual trustee to hear his or her own story.

Tom Quinn, who chaired the meeting, said how much the opportunity for meeting with students and parents had been appreciated. He indicated it was a reminder to the board that all their efforts are, indeed, for such as the group of small children kneeling on the floor learning to read and write.

KEY POINT: Tell about your educational success. If local school board meetings have agenda space for educational items, take the kids and let them share their writing successes.

Re-entry--Richmond Follow-up Session

One of the reasons I kept trying so many of the inservice ideas was that I wanted to have some examples and ideas to take back to the follow-up session in February 1982. We worked out problem areas together and discussed strategies for sharing the ideas on a school and district-wide basis.

KEY POINT: One major motivation for trying newly acquired writing approaches was the knowledge of an upcoming follow-up session. The importance of this time for feedback cannot be stressed enough.

Down to Earth--District Plan

Returning from the Richmond follow-up session I was ready to share the ideas at a district level. I had anticipated the following time-frame:

May/June 1982	Present plans and ideas to district staff.
September 1982	Inform principals, poll staff for interested teachers, form district committee with two representatives from each school.

October/June 1983	Inservice sessions for island-wide committee following Richmond model, using videos.
September 83/June 84	Committee members conduct sessions in their own schools, using a similar model.

In early June 1982 I met with district staff to share the program outline, a list of inservice criteria--what I called "The Charlotte Plan". Materials were simple and inexpensive: the Richmond videos, the Richmond Art and Writing Idea Book, student-produced materials and examples, pattern book collections.

I took reponsibility for obtaining all inservice related materials. District staff were generally supportive and encouraging. They took over the task of obtaining approval and informing principals so the sessions could start in the fall of 1982.

Somewhere, however, the idea and plans got sidetracked. I was sensitive to my "teacher-initiating role" and wanted to follow the proper communication channels, but at the same time hated to see what I felt was a super idea fizzling out. I waited and fretted.

KEY POINT: If there are too many links in the chain of "proper channels" the teacher-initiated inservice may lose impetus.

I became discouraged and decided perhaps the district was too caught up in budget restraints, declining enrolment, and other problems to have time to consider and approve writing-as-a-process workshops. But I had the Richmond videos in my possession, so I decided to show them to interested teachers on my own staff. They received them enthusiastically, thus providing the boost in morale I needed to continue pursuing the original plan at the district level.

A follow-up memo went to principals from district staff asking them to determine teacher interest and to choose two people to participate from each elementary school. Times of restraint and forfeited professional development days generated unusually high interest in the sessions. All the teachers at one school wished to be on the committee and the principal resorted to drawing names from a hat.

In January 1983, at a meeting with district staff I agreed to change the model from a district to a school-based inservice program. This change would enable more people to participate, and would involve less travelling. An important element in the inservice model was the sharing of ideas between schools.

For the present sessions I take one teacher a month from my school to help present topics at another school on the north end of the Island. I have been given five half-days for travel time and a budget of $200. Over the next five months we shall meet five times with groups of teachers from the north and south ends of the Island. The plan includes a final session where we all meet together taking along examples of our student's writing.

It's been just about two years since I had coffee with that inspiring superintendent. And really, things are just beginning to happen on a district-wide basis. The teacher-initiated inservice takes time, and lots of support from district educational leaders. I'm enthusiastic because of the success I can see with students and fellow teachers. I look forward to their first flights into the teacher-initiated inservice orbit.

WRITING TO READING IN THE PRIMARY SCHOOL

Margaret Wreggitt
Nechako School District

What It Is

At Mouse Mountain School all children write every day. The topics vary, the amount of writing varies, the level of sophistication varies--everyone is engaged in part of the process. All subject areas are integrated with the writing program.

In some classes pre-writing activities may be observed as a story or a poem being read and discussed or as personal experiences being related. Vocabulary around a topic is developed to form a word bank or a chart. Children thereby have the opportunity to select a word as their own which is printed on an individual card with their name. Through this pre-writing, the stage is set for writing with enthusiasm and involvement. Students have a personal investment because they are writing about their own experiences or wishes or imaginings. It is here that they receive the tools: ideas, vocabulary expansions, spelling and writing techniques, to prepare them for independent written expression.

Another class having reached the next stage of the writing process may be found drafting stories at the board. If the students are in the first grade, editing and proofreading takes place at this time, and skills are taught based on the students' specific needs. If the children are in second or third year, more of the editing is done by students themselves or by peers. Proofreading is done first by the students, then by partners or groups of students, and finally by the teacher. By this time, many errors have been corrected so that the teacher may dwell on content and refined editing rather than on technical errors.

The final stage is publication. All stories in our school are brought to this stage, for we feel that if they are important enough to be written, they are important enough to be published. Hence, stories are shared with classmates, with other classes, with parents. They are broadcast on the radio, published in the local or school newspaper, posted on the school walls, displayed in local business establishments, compiled into books of various shapes and sizes. Most visitors to the school find themselves listening to stories read by eager authors or find their eyes caught by interesting displays of written materials. Effective publication completes the writing cycle by providing impetus and motivation for the pre-writing stage, and helps children develop respect and appreciation for the writings of their classmates.

What makes the writing program unique is that reading is taught through the writing process. Children learn to read their own words first, then their friends words, followed by words in sentence patterns, and later, their own stories. Special emphasis is placed on sentence patterns and on high frequency vocabulary. Word attack skills are taught individually as needed while drafting stories at the board. Formal phonic lessons also take place. Children read their own compositions to the teacher, and later share these with their classmates. Reading and writing are inseparable and complementary.

A basic reading program is also pursued. Ginn 720 is supplemented with a variety of books at each level of difficulty. Vocabulary for the Ginn Program is introduced and maintained through writing, but is also multiplied many times. Children receive criterion and mastery tests and are given the Metropolitan Reading Test at the end of the year. Although less formal testing of the writing program is employed, it too is evaluated.

Implementation

The concept of "writing to reading" was discovered at a conference by two teachers in search of more effective ways of teaching language arts in the primary grades. After discussions with district personnel and the principal, a trial period for the program was agreed upon. Few additional materials were required at the early stages. Evaluation and monitoring mechanisms were installed, and the program was launched for grade ones in that school. These students who had been in school for only two or three months were writing stories varying in length from a couple of sentences to several pages. Parents were informed and were impressed with the results, and the principal and members of district staff saw results well beyond expectation.

Other primary teachers began to use it, and shared their new experiences enthusiastically with colleagues. Now the need for more inservice arose and the teachers requested that Doreen Wincott, originator of the program and resource person at the original conference, be invited to the district. The district workshop which ensued provided new impetus: more teachers in the home school and in other schools began using the program. The district personnel arranged for teacher visits to classrooms using writing to reading.

Staff changes at both the district and school brought a certain amount of shift in support, with greater responsibility placed at the school level. Although the two original teachers had left, the program mushroomed throughout the primary grades and spread to some intermediate classes.

The entire staff, teachers and principal, are committed to the writing to reading program. When new applicants are interviewed by the principal, writing to reading is outlined briefly. They are informed that the program is not mandatory, but that when they have settled in they might wish to try it. Invariably, they seek more information about the program. By the second week of school, teachers begin to appear in the staff room with the stories children have written. Inservice takes place on a formal and informal basis. A handout by Doreen Wincott is provided, teacher visits to other classrooms are arranged, and the principal provides guidance. Since Mouse Mountain is known as a writing school, the effect of non-participation would leave a new teacher with the feeling that something of great import was being missed.

Doreen Wincott has been in the district on several occasions. Most recently at Mouse Mountain School she presented her program to parents. Approximately 60% attended. Such parent and community support is valuable to students, teachers, and administrators. Our program received status provincially when a member from the implementation branch of the ministry visited our school, and recognized and endorsed what we were doing.

The Richmond Writing Institute proved to be valuable in refining our program and in helping to place it in a framework. The relative isolation in which we had been operating was removed, and teachers were delighted to find that what they had been doing successfully for several years had a theoretical base.

Teachers from our school have provided workshops for other schools, both in this district and outside, and the school has numerous visitors. In addition, the team attending the Richmond Writing Institute provided inservice in the district. District personnel provide support and are instrumental in arranging visits and professional development; their commitment to the writing program is invaluable.

Factors Contributing to Success

One of the factors in the success of implementing writing to reading is that more than one person was involved. Two energetic and dedicated teachers, with a good trust relationship, were able to plan, discuss, and evaluate successes and failures. They could strike up lively conversations in front of other staff members, and offered support to each other when called upon to defend the program.

A second factor is that the teachers have, for the most part, respect and tolerance of other staff members. The major impetus for implementation comes from colleagues' enthusiasm. There are no time frames or master plan to adhere to. Teachers' professionalism is not violated, but rather respected.

A third success factor is the trust, respect, and support from the principal. The principal carries much of the responsibility for the implementation by providing support in a variety of ways. Materials are provided promptly. Far more important, though, is the moral and educational support. Young authors' works are read and positive comments are directed to both teachers and students. Visitors are shown through the classrooms with obvious pride, and writing is pointed out. It is not uncommon to see custodians, maintenance people, and professionals reading stories in the hallways. The teaching principal uses the program and shares successes and concerns with colleagues.

There has been continued active support from district staff. Classes involved are visited frequently; the writing is read and commented on. Information about the program is distributed and teacher visitations are arranged in many classrooms. Assistance in monitoring the program provides concrete evidence that the program is successful. Inservice is provided.

Probably the best impetus comes from the children. Success is obvious, with immediate rewards. Feedback is immediate. Evidence of writing is displayed everywhere, and everyone experiences success. Test scores are only one measure of the improvement. Reading has improved dramatically.

Parents are impressed as children who have been in school for only a few months produce remarkable stories. With the support and respect of district staff, principal, parents, and students, teachers are motivated to continue the writing process.

How to Prevent Failure

To be successful, it is important for two or more teachers to begin implementing the writing to reading program. Respect and trust in each other are necessary. Regular feedback from colleagues is essential; to operate in isolation is difficult and discouraging.

Organization and monitoring are also essential. Objectives must be clearly stated and evaluation must take place to see that these have been met. The reading component may be monitored by listing the desired skills to be taught, the books to be read, the vocabulary to be mastered, and then by checking and testing. Writing objectives, too, must be set out and monitored. Without adequate controls teachers may have difficulty in pinpointing student achievement and in justifying the program to themselves and others.

School and district support are vital. The principal must provide moral support and be an advocate of the program. District personnel should commend and endorse. Respect for teacher professionalism is paramount.

To maintain the writing program's momentum is an on-going task for administration and teachers. Writing to reading continues to be used because it is fun, it allows for teacher individualism, and it works. Teacher enthusiasm carries it through changes in staff. Finally, the self-esteem that children experience through writing is reward for a caring teacher.

THE YOUNG WRITERS' PROJECT

Linda Kaser, Alan Warburton,
Bryan Eyjolfson, Jane Hunter,
Frances Lorenz, Mary Ann Mikituk, and Lindsay Watson
Richmond School District

What Is It?

Beginning in February 1980, several schools embarked on improving their writing programs through instructional strategies based on new research findings and the best of "old" teaching methods. Teachers began using a "writers' workshop approach" in their classrooms, where students were provided with regular opportunities to generate ideas, draft, edit, proofread, publish, and present their work to real audiences of other students, teachers, and parents. The initial impetus for this approach came from teachers on the district K-12 writing committee, and from an examination of both the Ministry of Education Learning Assessment recommendations and the new Provincial Language Arts Curriculum Guide.

As more teachers tried effective writing instruction strategies, the concept of a league of "writing schools" was developed. A writing school is a place where most of the staff members agree to use a common writing vocabulary, to spend time during language arts and other subject areas on developing a writers' workshop approach, to model writing themselves, and to view all members of the K-7 student population as young writers.

Schools which are evolving into writing schools are doing so within the framework of a five year plan.

1979-81: School-based inservice on writing strategies in a small number of classrooms in three schools.

1981-82: School-focussed inservice and district workshops on personal and literary writing strategies in additional schools.

1982-83: School-based inservice in additional schools and district meetings about personal, literary, and public writing in the areas of mathematics, science, and drama.

1983-84: School-based inservice and district meetings with a focus on public writing in the content areas, social studies included.

1984-85: School-based inservice and district meetings with a focus on developing school writing policies, which include appropriate, sophisticated evaluation strategies.

Roles Within Writing Schools

Principals of writing schools have

- helped plan school-based inservice;
- been sympathetic when things have not gone smoothly as teachers tried new approaches;
- introduced parent evenings and displays;
- obtained resources, especially school planning time;
- counselled interested administrators from other schools about what works;
- reported snags quickly, so timely support could be provided;
- arranged for staff members to observe effective writing strategies in other schools;
- discussed successes and concerns regularly;
- delegated leadership to teachers interested in coordinating school writing programs.

Teachers in writing schools have

- tried new approaches to writing instruction including teaching editing behaviours to students through modelling;
- written themselves;
- shared what has and what has not worked in their classes with other teachers on staff and in the district;
- opened their classrooms to teachers from other grade levels, other schools, and other districts;
- displayed the results of their teaching strategies at an annual district display and in school displays;
- written and published their successful teaching strategies in a district publication called Art and Writing Classroom Ideas;
- attended language arts meeting to share school concerns, plans, and successes;

Parents in writing schools have

- attended evening writing workshops presented by school staff members to learn a writing process vocabulary and to experience writing themselves; to learn how to act as an editor and an audience for their child's writing; to express support for the school's initiative in establishing a writing program;

- helped publish student writing.

Students in writing schools have

- learned to see themselves as writers, editors, proofreaders, publishers, and presenters of their journal entries, poems, stories, reports, memos, and letters;
- observed the Young Writers videotapes to see how other students have taken on these roles;
- assisted younger writers.

Authors in writing schools have

- talked about their own writing processes;
- encouraged younger writers;
- encouraged reading of Canadian books.

Appropriate Resources for Writing Schools

The most important resource for the development of a school writing program is time for teacher learning and dialogue. In Richmond, schools used

- professional days;
- school-based inservice funds;
- after school meetings;
- lunch meetings;
- time provided by administrators teaching classes so that teachers could plan.

Other useful resources included

- Young Writers videotape series prepared by the district;
- folders for draftwork and published work;
- author visits;
- teacher visits from other districts to learn and share their concerns have helped build support for the development of writing schools.

Teacher needs for knowledge and skill in using effective writing strategies have been addressed through

- ongoing school-based inservice sessions;
- observation and coaching sessions;
- six district language arts workshops held during the 1981-82 school year on school time with substitute coverage provided;
- after school meetings of language arts during the 1982-83 school year;
- annual displays of student art and writing at the district's instructional development centre;
- the use of the Young Writers videotapes with principals, teachers, parents, and students;
- two one-week (mornings only) art and writing courses held at Kingswood Elementary in July 1980 and July 1981;
- workshops in evenings, and conferences held in the district;
- development of school-based plans over a two or three year period; (During the lifetime of this project Richmond School District has introduced the role of the elementary school curriculum coordinator. Large schools have several coordinators and the small schools have one. As the curriculum coordinators with language arts responsibilities became more confident in their roles, they were able to provide substantial assistance in consulting and planning with teachers);
- the visits of "real" authors to writing schools have provided an interesting opportunity for teachers to learn more about how published writers approach their work.

Why Does The Concept Work?

The idea of writing schools has been sucessful because

- the key ingredient in the success of this project is its ownership by teachers and by schools;
- the professional risk-taking provided by the teachers who were videotaped has been significant in creating belief about the possibility of working towards writing classrooms and schools;
- the involvement of parents through evening workshops, evening displays, author visits, and publishing projects has helped to build a team feeling of support for students and teachers;

- the increase in knowledge by principals, curriculum coordinators, and teachers about the kind of thoughtful school-based planning necessary for development of a writing school evolved as each school has tried new approaches and shared them with others;

- student writing has improved and student attitudes to writing have changed significantly for the better.

The major unanticipated outcome was the relative speed with which "new" classrooms became involved in trying some of the strategies. This was a result, often, of hearing from friends who were trying the ideas in other schools, or by attending a parent evening at their own child's school. Some highly effective inservice sessions have obviously taken place over dinner tables in Richmond homes.

The concepts of a "writers' workshop approach" and "a writing school" have provided a useful structure in which to explore the teaching of writing to elementary students. Many teachers found that working with colleagues to develop effective approaches for improving writing and thinking strategies has been a refreshing change from the prescriptive-specific models used in other attempts at change. As well, emphasis on the importance of generating and drafting ideas in a tentative spirit without fear of "mistakes" has helped teachers to approach with confidence the task of developing writing programs. Teachers define "weaknesses" as initial drafts that they will continue to improve.

Example: A Writing Program in a Small School

The staff at Sidaway (140 students) are currently involved in the implementation of a program to improve the writing skills of the children K-7. The school experienced a change of staff in September 1981, with only two of the nine members of staff from the previous year returning to the school. The staff determined that a focus for program improvement should be established after observing children's skill level in various academic areas. As a result of staff discussion and a consideration of district and ministry priorities, the area of written expression was established as the major focus.

The school-based inservice plan for implementation was established jointly by the principal and the school curriculum coordinator, and endorsed by the whole staff as a priority project for a minimum of two years. In the first year, non-instructional time was allocated for discussion, planning, and skills development with the district curriculum coordinator.

The following roles were important:

- Principal - part of planning team; chaired monthly curriculum meetings; submitted budget proposals to school board office for school-based professional development; held monthly planning meetings with individual teachers to discuss individual writing programs (needs, concerns, successes); placed emphasis on steady, incremental progress.

- Curriculum Coordinator (School) - part of planning team; served as liaison with district curriculum coordinator; served as a representative at district level meetings; organized support material for teachers; presented to Parent Consultative Group on the writing process; organized children's work for display.

- Curriculum Coordinator (District) - close liaison with school planning committee; organized inservice sessions to provide for school needs; supported individual teachers and groups of teachers; coordinated parent evening presentation.

- Teachers - approved plans after discussion; attended meetings as required; took steps to alter teaching strategies; asked questions, argued, sought support, discussed, discussed, and discussed.

- Parents - learned about new terminology and approaches.

In terms of resources, the following points were important:

- A school-based inservice budget provided by the school district was sufficient to provide five 1/2 days of substitute time during the first year. In the second year school-based budgets were significantly reduced, but teachers agreed to transfer $300 of $480 professional development money to school-based inservice efforts. The board provided an extra grant so that five 1/2 days of substitute time were maintained in the second year.

- Outside resource personnel included authors Lyn Hancock and Jim Taylor.

- Materials were readily available from the district curriculum coordinator and from teachers.

Major strengths of the implementation included:

- time provided to discuss, plan, and consult;
- budget allotment that provided for release time from classrooms;
- the district curriculum coordinator provided ongoing support;
- a very low turnover of committed teachers;

- a small school setting that allowed much to be accomplished in a short time.

Weaknesses included:

- low parent involvement, partly because of the large number of ESL families (approximately 50%);
- insufficient publishing of children's work because organization of displays and newsletters was difficult to set up;
- a lack of cross grade/level discussion because the school was small.

There has been an attempt to make the program design collaborative and ongoing. We have attempted in our meetings to evaluate efforts to date and to plan activities in the short term whilst continually reviewing long term objectives. We appreciated the contribution of a capable district curriculum coordinator. Sufficient funding for teacher release time was also an essential ingredient for success. Overall, it has been an experience of professional growth.

Example: A Writing Program in a Large School

Kingswood is a large elementary school with a student population of 411 and a staff of 20. Prior to the 1982-83 school term, the writing process was a familiar concept as several teachers from Kingswood attended an art and writing workshop for one week in July 1981 (mornings only). Other staff members got involved in the process as a result of staffroom, noon hour, and staff meeting discussions. A major point to make is that informal verbalizing and sharing of ideas contributed a great deal to the initial implementation. Consequently, the staff felt confident enough with the writing process to have a Parents' Night in May 1981.

During the school year of 1982-83, our principal wanted to know if it would be possible to become a "writing school". Through formal and informal discussion, the staff decided to explore this concept. What started out as inquiry resulted in the implementation of a unique program.

We accomplished our goal of becoming a "writing school" through investigating different kinds of writing and through the teamwork of all members on staff.

The visit by author Lyn Hancock was successful as a motivator for a variety of reasons:

- The design of the school (four pods) contributed to the teaming of teachers in each pod.

- Roles were defined clearly--principal, curriculum coordinators, teacher-librarian, teachers.

- The school had a focus, each pod taking one of the animals in Hancock's book to research.

- Teachers did not limit the writing to research, but allowed the focus to encompass all subject areas and different kinds of writing.

- Several teachers on staff were effective resource people.

- Help was available from district coordinators in science and language arts.

- To see what each other had done was a motivating factor for both primary and intermediate students.

- Teachers felt they were an integral part of the team.

- A mother volunteered to type students' work.

At a meeting in January 1983, the writing committee, consisting of a teacher representative, the curriculum coordinators, the principal, and the vice-principal, met to discuss two questions:

1. What do students need at this point to broaden their writing experience?

2. How can we communicate what students and school are doing in the area of writing? Through further discussion, the committee decided to continue the consistency of a common "writing vocabulary" and to encourage the development of teacher-created ideas and strategies.

In February the curriculum coordinators surveyed teacher observations concerning what was working well in the writing process in our school. A meeting with the vice-principal, teacher-librarian, and two curriculum coordinators was held in March 1983 to discuss the concerns of the teachers and to make recommendations.

Implementation at Kingswood is an ongoing process. We feel that we are just beginning to develop a strategy that will work for the individuals on our staff. The direction in which we are headed is one of constant re-evaluation of time; scope and sequence; consistency of program, organization of program, mechanics of writing, resources and materials, short-term goals, and long-term goals. Only through re-evaluation will further innovation and implementation result.

There are five major reasons why the implementation of the program has been successful.

- On our staff we have many members who have an expertise in some area of the curriculum. We, as a team, have capitalized on their good ideas.
- The design of Kingswood School (pods) lends itself to the voluntary sharing of ideas. Teaming is the norm, not the exception.
- A consensus on our staff is that a school-based curriculum is one that works. A school-based curriculum gives teachers satisfaction in knowing of their contributions. Furthermore, they are personally committed to the implementation and eventual revision of the curriculum. It is also our intention to meet as a group to re-evaluate the curriculum, to discuss how it was used, to share strategies, to analyze strengths and weaknesses, and to instigate further changes.
- The writing process was a tool by which teachers and students investigated different kinds of writing.
- The staff members adopted a common research model which was consistent throughout the school.

The only suggestions for improving this implementation are: more inservice days, the return of non-instructional days, more resources and materials, and more parent involvement.

A WRITING SURVEY IN SECONDARY SCHOOLS

Sebastian Nutini and Joseph Ranallo
Trail School District

Introduction and Background

In November 1981, at the request of the superintendent, the secondary school writing programs were surveyed. An ad hoc committee composed of one representative from each of the four secondary schools and chaired by the supervisor of instruction set out to meet the following objectives:

1. to examine teaching and learning in the area of written composition within English courses;

2. to make decisions about further composition offerings in the secondary schools; and

3. to examine the proportional time allotted to writing/composition in secondary school English courses.

The ad hoc committee designed questionnaires to collect information from students, parents, teachers, administrators, and school board members. As part of the development of these instruments, administrators and teachers provided reactions to the proposed questions. Teacher and principal involvement was ongoing during planning, and the support for the project and the resulting implementation was school-based. As this process evolved, it became evident that information received from the survey could be used not only to determine the status quo of the district composition program, but also to encourage and facilitate the implementation of the new curriculum guide and resource books.

Planning

Formulating an overall plan for implementation was based in part on the information collected via the questionnaires. Teacher, student, and parent questionnaires provided the most useful information for this purpose. The committee envisioned that discrepancies between 'how students thought they learned best' and 'strategies used most often by teachers' would be critical areas in which inservice would be requested by teachers attempting to satisfy student perceived needs. It was also anticipated that the majority of student-expressed needs might be met by such strategies as: teaching writing as a process; teaching oral-aural skills; brainstorming ideas before writing; writing assignments related to lifetime pursuits; and integrating the four communication strands of listening, speaking, reading, and writing.

Once all questionnaires were returned and results tabulated, a final plan was devised. Copies of a report outlining the findings and recommendations were distributed to principals and teachers for their perusal. After sufficient time for reading and discussion of the report, principals and staff arranged for a professional day at which highlights of the report were reviewed by a member or members of the committee. Following this opening session, staff broke off into subject/interest groups to address these questions:

1. Which of the recommendations contained in the report are pertinent to our subject area?
2. Can we do something to improve the writing skills of the students we teach?
3. What are we willing to do?
4. Who will do it?
5. How can we evaluate the results of our action(s)?

It was expected that staffs would be anxious to address many of the findings and recommendations in the report and as a result would be willing participants rather than a captive audience. This approach was designed to ensure the 'ownership' of actions undertaken and the relevance of future inservice.

Although September 1983 was a target date for implementation, individual school actions and timelines were set by the people involved in the action plans; once again the committee hoped to place responsibility at the school/classroom level. A district meeting was scheduled for June 1983 to receive progress reports.

Once school staffs had planned actions, set timetables, and identified resource needs, district staff assistance would be available for the development of local materials, for assistance with planning, and for inservice sessions.

Professional needs in the pedagogical realm were also considered. The district thrust in professional development this year will be based on Madeline Hunter's "Science of Teaching Model". The district is training a core complement of administrators and teachers who will become trainers and local resource people to assist with the skill development needs of teachers. There is a belief in the district that instruction based on established principles of learning theory will minimize problems normally encountered with the implementation of new curricula.

Strengths and Weaknesses

An obvious impediment was the Ministry of Education imposed restraint program and its accompanying moratorium on professional development days. Tenuous board-teacher relations in the district made it impossible to have the first scheduled inservice day. Hence, the implementation process after data collection has been delayed and possibly postponed indefinitely. The opportunity of using effectively the motivation and interest generated by the questionnaires has been lost.

As the questionnaires were developed and data collected, it became obvious that the writing-survey had evolved into a much broader study encompassing a writing-across-the-curriculum emphasis as well as a study of composition as a component of regular English courses. The raising of Composition 11 to a quasi-compulsory status, the Ministry of Education developing evaluation packages, and the accompanying writing-across-the curriculum packages have enhanced the scope for quality inservice sessions which should help to provide successful implementation.

There has been no formal evaluation of the procedure because of the government restraint program. We were not able to get to Stage II of the implementation process.

It remains our opinion that the approach used was sound. The attempt to have students, teachers, and parents involved in setting priorities brought credibility to the project. If it were to be repeated the following changes would be considered:

1. Teachers would be involved at the beginning of the procedures in the development of the master plan.
2. More thorough explanation of the rationale for each questionnaire would be given to each group surveyed.
3. Specific questions would be reviewed with each of the groups to ensure an understanding before being asked to respond.

Even though the program was not formally implemented, there were many encouraging signs since that time. Teachers of English 11 in a large secondary school have adopted The Writers' Workshop approach for the teaching of writing--this for some has meant a radical change. Teacher classroom techniques seem to be reflecting student learning style preferences expressed on the student questionnaires. There are indications that communication skills are receiving more classroom time.

TWO PROCESS WRITING PROGRAMS

Howard Cross
North Vancouver School District

The secondary writing project, known as WRITING 44, was born two years ago out of a serendipitous coupling of informed concern over writing in the public schools and a meeting with Huntington Beach teachers. The project has been through a rigorous pilot year and is now in the second year of implementation in grades eight through eleven. Because these results were positive, a similar project was piloted last year in grades four through seven and is now in its first year of implementation.

Traditional views of curriculum development generally deal first with development, second with implementation, and finally with evaluation. The North Vancouver writing projects viewed these components as interactive, recursive, and overlapping.

An examination of "what went right" in the introduction of the two writing programs shows the following to have been critical:

- teacher awareness that a need existed in the area of writing;
- teacher conceptualization of a writing process that might meet this need;
- teacher commitment to the development and use of a program that is directed toward the improvement of student writing;
- provision of support systems for teachers using the programs;
- provision of a diagnostic and evaluation process, both to provide feedback on student progress and to monitor program effectiveness.

Awareness

Although the evidence was elusive to support the claim that there was a decline in student writing skills, most teachers were convinced that something should be done. What was concern became anxiety as teachers examined their present methods of instruction. They could offer no suggestions except to increase the quantity of student writing and proportionately to increase the use of red ink.

A meeting of department heads of English, called to examine the results of the 1978 Assessment of Written Expression, elicited the view that even though provincial assessments consistently place North Vancouver in the top ten percent of B.C. school districts, there still was room for improvement in the quality of student writing.

Intermediate teachers aware of the WRITING 44 project were also anxious to improve the quality of writing. A diagnostic test of editing skills and a request for a holistic writing sample for all grade seven students in the district served to focus this awareness. The purpose of the testing was to provide information to secondary school teachers, but results were also returned to teachers of grade seven classes.

Conceptualization

The Huntington Beach, California program had a credible, well researched base in composition. The most significant of the principles that supported that program and were later to support the North Vancouver program is given below:

> ...descriptions (given by compostion teachers) of the composing process differ markedly from descriptions by established writers and with the student's own accounts, conceptualizations and practices (Emig, 1971).

In contradiction to the "writing on demand" employed in many classrooms, there is general research agreement that the composing process consists of at least four stages which are recursive, overlapping, and interactive:

1. Pre-writing -- the stage of exploration, planning, idea generation.

2. Writing -- the stage of drafting, re-scanning, re-reading, reflecting, adjusting to audience and purpose.

3. Revising -- the stage of adding, deleting, substituting, re-arranging.

4. Editing -- the stage where wording is made to comply with conventions of the English language.

There is substantial evidence to indicate that revision is the most critical step in the improvement of writing. Revision is a difficult concept for students to grasp and apply, because the "writing on demand" method employed in so many classrooms tends to generate only a simple "tidying up" of a written paper. Overcoming the reluctance to become involved in a revision is a major pedagogical task.

One interesting development intended to encourage revision and editing has been the use of the computer in conjunction with a modified word-processing program. Students write, revise, and edit on the screen and then print out a final copy. Both quality and quantity of student writing show substantial gains.

Commitment

In two groups of forty-five, all the district's teachers of secondary English spent two days with the visiting Huntington Beach team. The days were spent in arriving at an understanding of the research principles of the program, in exploring classroom application practices, and in examining the feasibility of writing a locally-developed program that would build on those principles and practices. The response to this proposal was unanimously enthusiastic. Departments were asked to nominate members who would be willing to work during the coming summer on the initial development of such a program. Between the time of the meeting (April, 1980) and the summer, English departments committed themselves to discussing the proposed program's format and content. Their views were passed on to the writers. These writers, coming as they did from all schools were subsequently to become school leaders in the establishment of the program. Because they had committed time and energy for a full month, they had a real investment in helping their colleagues make the program a success.

Once commitment to development was established with teachers of English, meetings were held with principals to ensure that they understood the research base and the developmental process to be used with WRITING 44, because the program, once developed and implemented, would have implications for school organization. The program proposed a clear separation between the teaching of writing and literature, with the number of students in the writing section reduced, and the number in the literature section increased. If, as was anticipated, the program developed a laboratory component for the teaching of "mechanics", space would need to be provided for it. More significantly, if WRITING 44 were to prosper, principals' understanding, commitment, and support were crucial.

The development of the intermediate writing program was not to begin until a year later (summer 1981); the processes used to secure involvement and commitment were similar to those used for WRITING 44. Once the decision was made to develop a comparable program for intermediate grades, each elementary school was asked to nominate a writing representative. It was these representatives who were the first to secure an understanding of the research principles on which the process approach to writing was built. They then spent several days building a framework that could be used to develop an intermediate level program. At this point, the representatives met with elementary principals to discuss the proposal, its research base, and the roles that each might assume in development and implementation. Principals and writing representatives were seen as crucial in encouraging intermediate teachers to take part in development.

Development

Unlike WRITING 44, where the initial development was undertaken in a four-week summer period, the intermediate program was developed in components, each requiring the efforts of some twenty to thirty different teachers. The contributions of these teachers were later taken by a small group of summer workers and put together as units.

The generation of one of the program's components, Language Games, serves as an illustration of this kind of development. Language Games is a unit intended to create interest in language development, to help develop vocabulary, and to foster interest in word manipulation. Teachers who assumed responsibility for helping produce this unit, undertook to gather games from their colleagues and other sources. Through several all-day meetings these teachers sorted, modified, refined, and used the games that were later to be included in the program.

Equally as significant as teachers' involvement in the generation of the Language Games unit, was their involvement at each meeting in understanding the overall framework of the program and the research principles on which it was built. As other groups developed other components, the work of the groups were shared, and the relationship of one group's contribution to that of the others examined. As a result of this process it was possible, by the summer of 1981, for a small working group to refine and compile a finished program. The materials consisted of:

1. A "Teacher's Manual" detailing the program's classroom application.
2. Two collections of "Writing Units" as lesson topics that provide pre-writing, composing, revising, and holistic marking processes.
3. "Journal Ideas" which are lists of topics for possible use by students as a basis for daily journal writing.
4. "Language Games" which contains a miscellany of enjoyable activities to reinforce spelling, vocabulary, and language use.
5. "Sentence Combining" which is a collection of activities for combining sentences as an alternative to traditional "grammar" instruction.

The "unveiling" of the finished materials occured on a district-wide professional day in November 1981. All intermediate teachers and elementary school principals took part in a series of workshops, each of which had as its focus one of the components of the program. The workshop leaders were selected from the more than one-hundred teachers who had taken part in the program's development.

The twenty developers of WRITING 44 were broken into three teams in preparation for the month's work. All the teams worked in one large open area so that contact and communication amongst them was facilitated. One team of two undertook the development of the "Teacher's Handbook"; a team of three, the "Workshop Manual"; and a team of fourteen, the task of developing laboratory materials for student use.

WRITING 44 materials were developed as two separate but related components. The first of these, the "Workshop Manual", was intended to provide materials related to the pre-writing, writing, and revision components of the writing process; the laboratory component provided the mechanics for editing part of the process. What is learned in the laboratory is transferred to the workshop; problems identified in the workshop are remediated in the laboratory.

The foregoing overview of the development of the two programs illustrates that development, implementation, and evaluation are more intertwined than sequential, and that pre-developmental activities and involvement in development are critical to successful implementation. Although significant steps had been taken prior to the actual development of materials to enhance the chances of teacher acceptance of them, the developers were aware that their product had to be operational, to be specific rather than general, and to be perceived as immediately applicable. They were also aware that the product had to be consistent with the teacher's view of classroom realities and student needs. Finally, whatever was developed would likely be accepted only if it were perceived by teachers to be time and labour efficient.

WRITING 44 diverged somewhat from the traditional perception of classroom reality, but this divergence was compensated for by the perceived need that existed amongst teachers of English. Furthermore, the processes of the program and the provision of support through such devices as marking machines, brought the program to close conformity with the point: writing in this program has become more time and labour efficient.

Support Systems

Having learned from previous attempts at effecting classroom change that presentation to teachers of good materials is not enough, it was decided that sufficient resources be devoted to the support and maintenance of the writing programs. These resources included materials and equipment in sufficient quantity that their lack could not be claimed an impediment to the program's implementation. Because some of the requirements of the new programs demanded skills and knowledge that many teachers did not possess, released time inservice was provided on such topics as sentence combining, peer editing centres, holistic marking, and revision processes.

Commitment to the program was further maintained by the provision of released time for meetings of department heads, secondary teachers, elementary school writing representatives, and principals. WRITING 44 and issues related to it were a continuing topic on the agenda of secondary principals' meetings. Time was provided for teachers to visit the classrooms of others. A series of video tapes was produced on topics similar to those offered through inservice. Schools were encouraged to share and to demonstrate the programs with parent groups.

Conclusion

Change in school districts is difficult to effect. We are pleased to have had a positive impact in the critical area of student writing. One final point should be made, and that is that the chances for change are directly proportional to the receptivity of the teachers in a district. We have the support of a concerned and understanding board and a superintendent committed to a positive "ethos" in the district. Support staff and teachers are enthusiastic and dedicated.

References

Abrahamson, R.F. The Effects of Formal Grammar Instruction vs. the Effects of Sentence-Combining Instruction on Student Writing: A Collection of Evaluative Abstracts of Pertinent Research Documents. Houston: University of Houston, 1977. (E.R.I.C. No. Ed 145 450).

Bamberg, B. "Composition Instruction Does Make a Difference: A Comparison of the High School Preparation of College Freshmen in Regular and Remedial English Classes." Research in the Teaching of English, 12, 1978, 47-59.

Dingwall, J. "Literacy Lapses." Quest (November, 1981).

Emig, J. The Composing Process of Twelfth Graders. National Council of Teachers of English, Research Report No. 13, Urbana, Illinois, 1971.

Glatthorn, A.A. Writing in the Schools. Reston, Virginia: National Association of Secondary School Principals, 1981.

Haynes, E.F. "Using Research in Preparing to Teach Writing." English Journal, 67, 1978.

Hill, A.S. Our English. New York: Chataugua Press, 1980

Jerosky, S. Writing 44, Test Results, Summary Report. Vancouver, B.C.: Horizon Research and Evaluation Affiliates, 1982.

Kitzhaber, A.R. "Rhetoric in American College 1850-1900". Unpublished dissertation, University of Washington, 1953.

Marshall, L. Getting Curriculum Improvement into the Classroom. North Vancouver's Writing Programs.

Project Literacy. Teacher Resource Manual. Huntington Beach, Calif.: Huntington Beach Union High School District, 1980.

Sommers, N.I. Revision Strategies of Student Writers and Experienced Writers. Urbana, Illinois: National Council of Teachers of English, 1979

Writing 44 Teacher's Manual. North Vancouver School District, North Vancouver, 1980.

Writing: From Experience to Expression--Intermediate Writing Program. North Vancouver School District, North Vancouver, 1981.

III

IMPLEMENTING SPECIAL NEEDS PROGRAMS

INTEGRATION OF A TMH PROGRAM INTO A SECONDARY SCHOOL

Hal Lindsay
Richmond School District

Integration of trainable mentally handicapped (TMH) youngsters into the mainstream of education was formulated as an idea in Richmond in December 1976. At that time the trustees, the director of instruction, parents, the supervisor of special education, and the principal of Crestwood School (for the retarded) decided to put this concept into practice.

In May 1977 a new committee was formed, consisting of two trustees, three parents of moderately retarded youngsters, a director, a supervisor of special services, three parents of the receiving elementary school, a teacher of typical children, a teacher of atypical children, the principal and vice-principal of the receiving schools, and the principal of Crestwood School.

In selecting schools in which this program would be introduced, these factors were considered: size of typical and atypical student populations, location of the school in a population centre and in relation to feeder elementary schools, and physical layout of the school. After considering these factors, the committee selected Brighouse Elementary and Richmond Senior Secondary as the receiving schools. No junior secondary program was introduced at this time as the committee felt that youngsters in that age range had enough problems of their own and that they might not be as receptive to the mentally handicapped as would senior students.

An intensive inservice training program began for the staff of the senior secondary school. An inservice day was organized by the supervisor of special services for all teachers, primarily to explain what was going to happen and to allay fears that TMH students would be showing up in all classes. A number of the staff visited Tacoma, Washington and all visited the various classes for the handicapped in Richmond. As the administrator of the secondary school for the program, I spent considerable time at Crestwood School becoming acquainted with these youngsters. In addition, I read their files in order to find their strengths so that I could work with the teachers concerned and develop a suitable program. With several teachers from my staff I attended a workshop on autistic children in Portland and a number of conferences on exceptional children.

Our purpose was to learn about mental retardation in a short time. A teacher of physical education was sent to a workshop in Madison, Wisconsin for the purpose of developing an activity program for these youngsters; the drama teacher was sent to Toronto for a similar reason. Finances were provided by the school board who were most supportive of the program.

During this time, the TMH students were taken as a group for short visits to Richmond Secondary. On these visits they had lunch in the cafeteria, watched the students in physical education, and generally became familiar with the school, as did the teachers who accompanied them.

A further inservice program was carried out for the "regular" students who would be in Richmond Secondary the following year. The coordinating principal of the TMH program showed them pictures of the TMH children, told something about the type of retardation each had, and how to react to any unusual behaviour. Some 300 students volunteered their free time to work with them.

Meetings were also held with the parents of students on the TMH program. They had concerns regarding integration which gradually disappeared as the program progressed.

During 1979 a facility was built in Richmond Secondary. Two classrooms were converted to three, with a shop area, living skills area, and an academic area. The rooms were painted in bright, cheerful colours with doors to the hallway painted yellow so that the youngsters would have no trouble finding their classroom area. Two special education teachers and two aides were assigned to the twelve students who were expected.

During the period 1976-80 an intensive publicity campaign was conducted. Newsletters were sent to all parents, articles were published in the local newspapers, and a television interview was arranged.

In September 1980 all was ready. Now began the task of developing specific programs. We did not want to move too quickly, but neither did we want to leave these youngsters confined to their facility all day. Two shop teachers volunteered their spare time to develop a skills course and, working with the special education teachers who assisted in task analysis, designed a program in a large vocational machine shop. The physical education teacher designed a course geared to their needs and abilities. In the following year we introduced courses in foods, in crafts, and in drama. In accordance with the concept of progressive inclusion, where possible, students attended "regular" classes, for example, foods, cafeteria, shop. "Regular" teachers adapted quickly to teaching these youngsters and look forward to seeing them each day. Groups of teachers are now developing appropriate text books, using simple written explanations, pictures, and Bliss symbols.

We have also introduced on-campus and off-campus work experience programs for the more able TMH students: some work in the library and the cafeteria; others work in the community in bakeries, fast food restaurants, and a furniture factory. Many of them are able to travel by bicycle or metro transit instead of being transported by school bus.

These youngsters have a representative on the student council; they assist school athletic teams; they have a floor hockey and a soccer team; and they participate in all school events, including graduation exercises. When the first two graduates of the program, both Down's Syndrome youngsters, walked across the stage, five hundred grade 12 students stood to applaud for some five minutes.

The success of this program was due mainly to the care taken in preparing everyone for its implementation. Without inservice preparation of all parties concerned there may well have been unexpected problems. Teachers and students did not merely accept this program, they supported it. No significant problems occurred.

If we were starting the project now in this district, we would probably move these youngsters along with their peer group, that is, with junior secondary and eventually senior secondary students, because they are accepted at the elementary level and would then be in a group of youngsters who know them. Also, we would not build a facility with a shop and living skills area, for we have found that these youngsters are quite capable, provided proper supervision and modified instruction is provided, of working in the regular areas of the school. We also found that many of the limitations these youngsters are supposed to have, exist primarily in the minds of the adults who tend, understandably, to be overprotective. We search for their strengths and build on these; we cannot focus on their weaknesses and let these prevent us from providing challenging experiences.

COMBINING CHALLENGE, CREATIVITY, AND COMMITMENT

Bernie Bowker
Greater Victoria School District

Beginnings

In March of 1979 the Victoria school trustees became interested in implementing a program for gifted senior secondary students. Their interest was a response to a parental demand that special provision be made for exceptional children.

Both the trustees and the staff of Esquimalt Senior Secondary School were attracted to the idea of the International Baccalaureate. After investigation by the Esquimalt staff, a proposal was made to the board that the program be inaugurated at the lower level rather than at the higher; if, after a year, it was deemed successful the second year would then be offered. The board, however, favoured a full program's being implemented. The principal, at the next board meeting offered to implement a gifted program for all Victoria senior secondary students. Although this would not be the International Baccalaureate, it would incorporate some of its ideas. The trustees approved the proposal and the 4C Program was born.

A planning committee comprised of five teachers and department heads, and the principal began to plan the program. Bernie Bowker was appointed program coordinator because he had worked with similar students on the Major Work Program in North Vancouver. The committee developed a program rationale and a number of objectives. Renzulli's Triad Model was used as the basis for identifying the gifted; the interlocking traits of creativity, high intellectual ability, and task commitment seemed most appropriate to describe the kind of student we wanted to attract. By the end of May the committee had decided to begin at the grade 11 level and add grades 10 and 12 the following year.

A Program for the Gifted

The program was designed with two components — intellectual and social. The intellectual component included such things as enriched classes, accelerated completion of subjects, problem solving approaches, scholarship preparation, a Quebec exchange, and a two-year major project not unlike an honours thesis for a degree. The program included more than enrichment or a scholarship structure. The development of higher level thinking skills was an essential element. Also, because students could move rapidly through the ordinary curriculum, acceleration was useful; for example, English 11, 12, and Literature 12 are given in two blocks instead of three. At the end of grade 12 each student is required to present to the class a major project in one of these categories: intellectual, creative, community service. Intellectual projects which are most common selected, are usually presented in the form of a thesis. Creative projects are frequently in the form of a work of art presented to the school. Community service projects have taken many forms, from winning the gold Duke of Edinburgh award, for example, to teaching radio theory at Pearson College.

The social element was recognized as necessary to produce a learning environment which was highly stimulating but not destructively competitive. It would be necessary for 4C Program students to be exclusively together for at least two courses per year, to do problem solving as a group, to participate in outdoor activities, to go on the West Coast Trail for a week and to be together in other ways. Gifted programs have often been plagued with social problems such as personality clashes, the formation of cliques, and isolated individuals. The social elements here were specifically designed to create a sense of belonging to the whole group in a spirit of camaraderie and cooperation. If the social aspects of a program are successful, intellectual success is likely to be greatly enhanced.

Roles

The principal developed the concept of the 4C Program and won board approval for its implementation. He was able to persuade the board to designate an additional teacher to the program in the first year and two more teachers the following year. Additional funds for supplies, inservice, books, and substitute teacher time were also given. Although the principal was involved with the general ideas upon which the program was based, he left the detailed planning to the five teachers. After one year a new principal came to Esquimalt; he was equally enthusiastic and continued to play an important part in the program development.

The detailed planning was carried out by the program coordinator and the department heads of English, mathematics, science, and social studies. Having adopted a basic philosophy, we established a set of general objectives and specific subject area objectives. Since our school has a linear seven-block timetable, a conflict arose between the objectives of sciences and mathematics and the other subjects. A strong science-mathematics seemed to require four of seven blocks, therefore creating an unbalanced program. A compromise was reached by compressing Biology 11, Chemistry 11, and Physics 11 into two blocks taught by themes rather than by subject area.

In the summer the science head was appointed district science advisor and two new science teachers were taken on. They had not been involved in the initial planning, nor had they been advised that they would be required to teach in a gifted program. Consequently, the science component did not work as it had been originally planned. At the end of the year, the teachers of the program, who met regularly throughout the year, agreed that future positions would be advertised within the district. No one, it was felt, should be appointed to teach on such a program without their knowledge and consent.

Attempts over two years to use this approach encountered problems which may be overcome when the school is organized on a five-by-five semester timetable. English, social studies, and French were offered at an enriched level, and all students were expected to take all enriched subjects. One block per subject per cycle would be set aside for outdoor activities, guest speakers, and field trips.

By the end of May 1979, the 4C Program had been fleshed out. We planned to review the structure and the separate elements on a regular basis with all the teachers who taught enriched classes. However, the basic philosophy and the overall objectives remained substantially unchanged.

The committee members, in pairs, visited all the secondary schools in Victoria to explain the program to interested students and teachers. Applications in writing were invited, interviews with the student and a parent were given, and acceptances mailed to the successful applicants. Subsequently, the coordinator took over this task.

Wherever possible the coordinator attended workshops or meetings related to teaching the gifted. The results were relayed to colleagues at bi-monthly meetings. By special arrangement of the principal during our first year we had a visit from Don Trefinger, one of the best known American educators of the gifted. From these sources and from our own experience we developed professionally. Of course, the willing involvement of teachers as well as the support of all the staff was necessary for success.

Thus the 4C Program was conceived and developed by the principal and a few staff members at Esquimalt. District staff, while supportive, were not involved in planning and implementation, but they were led by Dr. Don Knowles of the University of Victoria in an evaluation of the program in May 1981 at the end of the second year of its operation.

Assessment

The program has a clear philosophy and set of objectives, and a dedicated staff who review and monitor the content and details of the program. It is substantial enough and clearly structured so that it could be implemented in other schools and districts. It has an active parent group drawn from all over the city.

In spite of the hasty development and implementation of the 4C Program only a few things have required changing. A block of time for social studies was set aside for those areas of gifted education beyond scholarship and enrichment: creative problem solving was approached through the formal study of philosophy; time was provided for outdoor education activities and field trips; assistance in planning and time to complete the major project were provided; and resource persons were brought in.

In spite of the limited time of six weeks to plan a program so that it could be ready for implementation, the plan was largely successful. At least one member of the planning group should have a few years experience working with gifted children. No teacher should be required to teach in a gifted program who is not an enthusiastic supporter of the concept of gifted education and the teacher should be an experienced master of his/her subject; the program's success or failure is to some extent dependent upon the attitudes and abilities of the teachers involved. District staff should be more involved in monitoring the gifted program to see that appropriate staffing and funding are allocated to the school.

A SECONDARY LEARNING DISABILITIES PROGRAM

Bev Saumier, Alfie Smaback, and Shirley McBride
Langley School District

Introduction

For a number of years children with specific learning disabilities have been served in elementary programs in the Langley School District. A problem was encountered when these children moved to the secondary level, because the only specific programing at that level was in rehabilitation classes designed primarily for children with behavioral and social adjustment difficulties. If the gains made at the elementary level were to be maintained for children with specific learning disabilities, a new approach would have to be used in the secondary schools.

During the 1979-81 school years, the program consultant in learning disabilities and the supervisor of special services reviewed the literature on learning disabled students. The approach used by Deschler and his associates at the University of Kansas seemed to be compatible with elementary programing in Langley.

In the spring of 1981, a team of teachers and the program consultant visited Dr. Deschler and observed the program in Lawrence High School, examining the feasibility of a similar plan for Brookswood Junior Secondary School. Based on the team's findings, an implementation plan was developed. Despite some initial difficulties with space requirements and projected building at Brookswood, it was decided to proceed with the pilot program because there were several children for whom the approach seemed entirely appropriate, and because there was no other suitable secondary setting to meet their educational needs.

District Implementation Time Line

A. Needs Assessment (Spring 1980)

An overall plan was formalized in May 1980; it included needs identification, and projections based on the elementary population. An important consideration in the initial implementation of the program was the role of a program consultant. The consultant's services were involved in the selection of an appropriate model for the program.

B. Budget Considerations (October 1980--February 1981)

The first draft of the budget was presented to the school board in October 1980. It was acknowledged that the school district would be responsible for funding the program until ministry approval could be attained. In

February 1981 the budget was approved; from within the K-12 learning disability budget, funds were allocated for program start-up.

C. Site Location (Fall 1980--Spring 1981)

These criteria were applied in choosing a site for the pilot program:

1. Easy access to the program through the school district transportation system.
2. A school not already heavily involved with other special programs so as to avoid overloading the school and to increase opportunities for the social integration of students.
3. A school with a grade 8-12 configuration so as to avoid needless changing of schools for students in the program.

The site was selected in March 1981.

D. Staff Selection (April 1981)
In choosing staff for the program, these criteria were applied:

1. The teacher should meet minimum Ministry of Education training requirements for teachers of the learning disabled.
2. The teacher should have had successful experience working with learning disabled students.
3. The teacher and aide must be able to function compatibly as a team.
4. Staff in the program should be able to function effectively as part of an interdisciplinary team.

E. Staff Orientation (May 1981)

In May 1981 the learning disability teacher, the program consultant, and the learning disability teacher of the pilot school were sent to Kansas to observe the Dechsler Model in operation.

F. Program Evaluation (June 1981--May 1982)

Planning for evaluation of the first year of the program was carried out in June 1981. Data was collected in April 1982 and the report completed in May 1982[1].

School Level Implementation

The principal and vice-principal were involved in the interviewing for staff. After staff selection, a planning session was held with the administration; and then the counselling department became the liaison for the learning disability teacher and aide.

Prior to September 1981, and in consultation with the program consultant, the learning disability teacher and aide ordered materials and equipment needed for the program. In addition, they met with department heads in the secondary school to familiarize themselves with curriculum and content. In June the learning disability team conducted interviews with students, parents, and learning assistance teachers to outline criteria for the program and the commitment required from incoming students. The criteria formulated by the program consultant and learning disability teacher were based on Ministry Guidelines 201 and the Deschler Model.

A. Criteria for the Selection of Students

1. Intellectual Ability - an intelligence quotient from a test individually administered which places the student no lower than one standard deviation below the mean, allowing for the standard error of measurement on the test and for judgement about the sample validity.

2. Academic Achievement - a significant discrepancy between actual and expected performance as predicted by measures of academic aptitude. Performance is to be assessed on an individually administered standarized measure of academic achievement or pre-academic development. A significant discrepancy is defined as more than one standard deviation from expectation.

3. General Classroom Performance and Adaptive Behaviour - students whose behaviour was seen as secondary to the learning disability were admitted to the program, but the presence of behaviour problems was not a criterion for admission.

B. Time Lines Within the School

The time lines followed made it possible for the learning disability teacher, in consultation with the aide, to computer timetable each student a week before the opening of school. Students were placed on an individual basis for effective monitoring and suitable class instruction.

C. Suggested Changes

At the beginning of school in September the program was fully operational, although initially, the expansion of the school created space problems. Ideally there should be a room available for the program and a liaison must be established with the counselling department. Inservice was of the utmost importance for the school staff involved with the pilot program. Evaluation of the implementation after one year raised some concerns. The overall plan was effective, but the time frame needed to be extended. Placement conferences needed to begin earlier than June, as neither students nor their parents should have made decisions that late in the grade seven year. The program model served students who met the criteria, but students who had a primary behaviour problem and were diagnosed as learning disabled should have had an alternate program, or else the program should have been changed at the school level. Another program, following this model has been established in the district and an assessment will be undertaken this spring (1983).

Footnote:

[1] Available from the Langley School District.

ENRICHMENT FOR THE GIFTED THROUGH THE LIBRARY

Ron Kilbey and Anne Hill
Prince Rupert School District

To understand the rationale precipitating the role change for teacher-librarians in the Prince Rupert School District, one must appreciate the decision made in the spring of 1980 to shift the emphasis from district to school autonomy and control over all programs.

One of the district goals involved transferring the responsibility for developing programs for students identified as academically gifted from the itinerant teacher of the gifted to the school librarian. To facilitate this role change, the board approved an increase in teacher-librarian time per school by 50%. The assistant superintendent then met with the teacher-librarians in May 1980, to describe the role change, emphasizing its "expansion". Creating a professional growth program to realize this goal was the first priority of the newly appointed supervisor of curriculum and teacher services.

The supervisor met with the itinerant teacher of the gifted and the resource centre coordinator to consider the specific nature of the role change, the skills required to fulfill this role, the inservice program needed to acquire the skills, and strategies for implementing both the inservice program and the new role responsibilities.

Implementation Procedure

Our concerns focused on creating a feeling of role ownership and sense of common purpose amongst teacher-librarians and school administrators.

1. To highlight the supportive nature of the role of teacher-librarian, it was decided that they would become skilled in helping teachers develop and enrich curriculum units. In addition they would be expected to provide instructional support for students identified as requiring a differentiated program.

2. To realize this goal, we determined that skills would be needed in developing curriculum, recognizing instructional models, appreciating the relationship between curriculum and instruction, developing enrichment activities, exercising consultative and group process skills, and recognizing the various orientations teachers have to curriculum decision making at the classroom level. Complementing the group sessions to address these skills were on-site demonstrations and guidance from the teacher of the gifted. The implementation plan, then, was to focus on skill development at the site and workshop level, and to phase in the new role as each teacher-librarian acquired knowledge and developed skill.

3. Because our aim was to make this program school-based, we included principals in all inservice sessions except those dealing with group process skills. We looked to these people to facilitate implementing enrichment programs.

4. While providing this inservice package to teacher-librarians and principals, the supervisor and coordinator provided school-based workshops to elementary staffs on unit development and on the instructional process. The goals of this series of workshops were

- to train teachers and principals how to write learning objectives;
- to make teachers and principals aware of implications of instructional objectives (written in learning outcome form) on instruction;
- to make teachers and principals aware of the relationship between the instructional process and unit planning;
- to provide teachers with tools for the creation of enrichment units; and
- to make teachers aware of the new role of teacher-librarian.

5. Resource people were brought in to address skill/knowledge acquisition in differentiated programing, in curriculum making at the classroom level, and in orientations towards curriculum.

6. Because Prince Rupert traditionally experiences a high turnover of teachers, the creation of strategies to maintain the effectiveness of the program was particularly important. It was specifically highlighted in the assistant superintendent's directions to the inservice team. We dealt with the issue

- by developing a condensed version of the inservice package for new teacher-librarians;
- by buddying the newly appointed people with experienced librarians;
- by recruiting teacher-librarians with training in unit development and in enrichment programing;
- by providing on-site support by the teacher of the gifted; and
- by initiating monthly "sharing sessions" where new materials were introduced and successful experiences shared.

7. In January of 1983, Education 382 was offered by UBC. All elementary teacher-librarians enrolled in this course. The course content attended to inservice needs for teacher-librarians for this year, covering such topics as library management, group process skills, cooperative teaching, and unit planning models.

Indicators of Success

1. Teacher-librarians all are involved in teaching students identified as exceptional.

2. Teacher-librarians are engaged in discussions with classroom teachers regarding unit development and unit enrichment.

3. Teacher-librarians are creating and gathering resource materials to use with exceptional students.

4. Teachers are demonstrating a willingness to discuss the intended learnings prior to requesting specific materials, thus leading to effective use of resources.

5. More teachers are focusing on widening the scope of the curriculum in the classroom to include enrichment activities for a majority of children.

6. Libraries have assumed a new dimension as learning centres, providing activities, displays, and games of logic and strategy that benefit and intrigue students.

7. More teachers are changing their approach to planning programs. They are now more likely to question the need for repetition and drill for students who already are adept at a skill, or to introduce a new concept which students already understand.

Strengths

1. Each teacher librarian felt at ease with the expectations of implementation. The opportunity to "take over" as one gained confidence contributed to the sense of commitment and optimism.

2. The on-site help, which complemented the group inservice, helped to translate theory into practice and to maintain the momentum of change.

3. Not only were principals on-site facilitators, but also they felt a sense of ownership for an innovation which they participated in initiating.

4. Workshops for staffs, administrators, and teacher-librarians provided a common knowledge base and a willingness to "learn more".

5. Recognition by teachers and principals that the innovation was district initiated, and supported in tangible terms, helped generate confidence in the change and commitment to its success.

6. Each September principals and teacher-librarians are visited by the district helping teacher to discuss the enrichment program. Later in the fall, these groups meet to consider further inservice needs. Finally, the monthly sharing sessions and periodic visits of the supervisor help to monitor progress and maintain momentum.

Weaknesses

1. Only one survey questionnaire was developed to evaluate the effectiveness with which the innovation was perceived to have been implemented. Further surveys on "levels of use" should be conducted. More information is needed on parents' perceptions of the program.

2. A consistent procedure for the identification of gifted students is in place, but requires evaluation. Also, after the helping teacher position is phased out we shall need to redefine areas of responsibility, particularly for student identification.

3. Principals were not involved in the group process and consultative skills workshops, and began to drift away from the thrust of the implementation process. They should be included in all inservice.

4. There is a need when implementing change to provide school administrators with a professional growth program that complements the "specific task" inservice. Such a program should address the role of the school administrator in initiating change, in problem solving, and in conflict resolution. The lack of such a program did not seriously jeopardize the project, but administrators should be helped in abstracting from successful situations the patterns that lead to effective implementation.

Summary

The success of the implementation of this innovation may best be measured by the sense of fulfillment and enthusiasm assumed by all who were associated with it. Many students in all district elementary schools now are enjoying an expanded curriculum that ordinarily would not have been available in the regular classroom setting.

IV

IMPLEMENTING MICROCOMPUTER PROGRAMS

ONE COMPUTER IN AN ELEMENTARY SCHOOL

John Munson
Sooke School District

Introduction

In October of 1981 the staff of Happy Valley Elementary School decided that a microcomputer was needed in the school. The Home and School Association agreed to purchase an Apple II Plus computer and disc drive along with a monitor by raising the necessary funds through a fun fair. The computer was purchased in June of 1982.

The school has 335 students enrolled from K to 7 and eighteen staff members. In addition to thirteen classroom teachers there is a principal, a vice-principal, a language assistance teacher, a librarian, and an enrichment teacher. The average teaching experience is twelve years. Prior to the arrival of the computer in the school, most staff members had little exposure to computers.

The initial decision to have a computer in the school originated from the principal and vice-principal. This decision was based on a perceived need and the available expertise of the vice-principal with computers. The perceived need was that society is changing rapidly and that schools must be better equipped to provide an education for children which includes skills and knowledge to cope with this change. A corollory to this need was that teachers had to become familiar with the new technology to begin to provide this education. Having a computer in the school was the first step toward achieving these ends.

The staff was approached about having a computer in the school and making it a priority for the 1982-83 school year. This proposal was agreed to unanimously. It was decided that since the vice-principal had the available expertise he would be in charge of the implementation of computer use in the school. He will hereafter be referred to as the project leader.

Program Objective

How effective can one computer be in a school this size? It was decided by the staff that the aim of computer use in the school would be to have students and teachers achieve a degree of computer literacy.

Problems in computer use by teachers could be described as related to 'role behaviour'. The following is a list of the more apparent problems: 1) All staff members agreed in principle to the concept of computer use in the school; some staff members, though, questioned whether one computer would be sufficient. 2) Helping certain staff members overcome a 'fear' of the computer was of some concern. 3) Previous experience had to be recognized:

"Oh, the computer will go the way of the TV in education." 4) At times a resistance to change was apparent, perhaps induced in part by the political climate resulting from the provincial restraint program. 5) Scheduling the computer into timetables produced a number of related logistical problems; a staff member, for example, might have a gym period the morning she was scheduled for the computer. 5) Providing staff members with information regarding newly arrived software was a major problem.

The Implementation Plan

The project leader decided to follow a model of implementation outlined by Kenneth Leithwood[1]. A committee was established to provide feedback and direction, but in the initial stages its function tended to be limited. The staff as a whole was also consulted when circumstances necessitated such action.

The model prescribes these tasks:

1. Identify the goals to be accomplished; these were prepared by the project leader and presented to the staff.

2. Identify those practices teachers had to perform resulting from computer use in the classroom. These new practices were to be the subject of initial inservice sessions.

3. Identify practices and concerns not immediately addressed by the use of the computer in the school, such as location and movement of the computer, scheduling, software acquisition, roles of participants.

4. Develop a profile outlining a sequence of role level changes that teachers were to proceed through (see Appendix). This profile not only provided direction in the implementation process, but also provided manageable steps to plan for and to proceed through.

5. Determine what is necessary for growth to occur from one role behaviour level to the next. Inservice training was to be the main vehicle for providing teachers with the necessary knowledge and skills to move from one level to the next. The project leader provided inservice training in two forms. The first was to present sessions to the staff as a whole. Two large group sessions were given in the fall of 1982 and two in the spring of 1983. Following these sessions individual inservice was given to each staff member upon request, to extend the topics presented in the large group sessions or to deal with individual needs.

6. Identify obstacles preventing growth from one level to the next. The major obstacle was the limitation resulting from having only one

computer. Once the obstacles to growth were identified, strategies had to be developed to overcome them. Providing effective inservice and good software were essential in dealing with the major obstacles.

7. Develop evaluation procedures. Formative evaluation was organized around the principle of improving the implementation process. Feedback was obtained from the staff and from the computer committee. Such feedback involved the quality and usefulness of software used in the classroom, the organization of the computer schedule, suggestions for topics to be addressed in an inservice session, and the dissemination of information regarding newly arrived software. Monitoring how often the computer was used provided useful information.

Summative evaluation will occur at the end of this school year on whether the objectives were being achieved. These objectives would be closely linked to such evaluation questions as 1) How often is the computer used? 2) Who is using the computer? 3) How is it being used? 4) How much teacher involvement has there been in the implementation process? 5) What is the principal's perception of the computer's effectiveness in the school?

The Role of the Classroom Teachers

Their role is to participate in inservice classes to achieve a degree of literacy so they can: adapt or design activities to teach computer literacy, select and direct appropriate CAI to enhance the activities in their classrooms, and serve as "computer club" instructors.

The Role of the Project Leader

The project leader's role is: to be responsible for managing the implementation and change process in the school; to select, evaluate, catalogue and maintain suitable CAI materials and possible program materials; to provide inservice activities for classroom teachers through workshops and demonstration sessions; and to act as a resource person for the teachers.

The Role of the Principal

The principal's role is: to assist in managing the implementation and change process in the school; to be involved at the initial stage of implementation; to maintain an interest; and to facilitate the solution of problems encountered in implementation.

Timeline

Planning involved the development of a timeline before the arrival of the computer in the school.

May - December, 1982

1. Secure catalogue and disseminate information pertaining to available software programs.
2. Establish physical location for the computer.
3. Commence computer clubs for interested students.
4. Commence computer proficiency programs for students in grades 5 to 7.
5. Provide inservice sessions for all teachers.
6. Purchase printer.

January - June, 1983

1. Continue selecting, cataloguing, and disseminating software information.
2. Continue computer clubs.
3. Continue computer proficiency programs to include all students in the school.

September - December, 1983

1. Purchase additional computer unit.
2. Continue securing, evaluating, and disseminating software information.
3. Continue computer clubs.
4. Continue computer proficiency programs.

January - June, 1984

Evaluation of the project.

Schedule

The initial classroom schedule was designed around the objective of achieving a degree of computer literacy for all students and encouraging teacher familiarity with computer use in the classroom. The major criterion was to provide a schedule which allowed large blocks of time for each teacher on a regular basis. A two-week schedule was developed, allocating a block of time for all classes, generally an entire morning or afternoon. A teacher wanting more time had the opportunity to sign for the computer in vacant blocks of time.

Club

An important component of the implementation of computer use in the classroom was the computer club. Students from grades 4 to 7 were involved in the club which met regularly twice a day, four days a week. Two teachers supervised the club and were assisted by parent volunteers. The schedule was based on a four-day week, meeting from 8:00 to 8:30 A.M. and from noon to 12:30 P.M. Grade 4 students met on Mondays; grade 5 students, on Wednesdays; grade 6 students, on Thursdays; and grade 7 students, on Fridays. Club members were able to assist their teachers in the classroom by setting up the computer or by aiding classmates in computer-related assignments.

Resources

The acquisition of software was initially left to the project leader, but the computer committee gradually took over this responsibility and gathered input from other staff members. Acquiring appropriate quality software proved to be a difficult task.

Parents volunteered to assist in the computer clubs. The project leader trained twelve parents to assist students, two of whom went on to assist teachers in classrooms.

Conclusion

The major strength of the procedures described above was its requirement for planned action. Once the goals had been established and the new practices identified it was necessary to develop a role behaviour profile for teachers. This profile provided further direction for the implementation process. It required thoughtful consideration of what might inhibit growth from one level to another and what strategies might be employed to deal with the identifiable obstacles to growth.

Another strength of the procedure was the encouragement of teacher involvement in the process. Through this involvement teachers became more committed to computer use in the school. This was especially noticeable in teachers serving on the computer committee.

The major weakness of the procedure was the amount of time required in the planning and implementation process itself, especially of the project leader.

There are a number of guidelines for successful implementation:

1. Plan the implementation.

2. Consider carefully the available resources. Computer software should match not only the intended users but also the circumstances in which it will be used.

3. If parents are going to be used to assist teachers in the classrooms, train them properly. In so doing they become an important resource for the classroom teacher.

4. Provide well thought-out inservice sessions and individual sessions.

5. Develop a realistic timeline.

If this project were to be done again, certain changes should be considered. Provisions for more teacher input would have to be made. Since the project leader was left with much of the decision making in the initial stages of the process, there was not a high degree of commitment on the part of the other teachers. It was not until that input was sought and others began to share in the decision making that there was a noticeable improvement in commitment.

More consideration would be made in developing the teacher profile. Only one profile was developed for all of the teachers as was described above. A profile for each teacher would help to focus on individual growth and provide specific direction for each teacher. By identifying the obstacles inhibiting growth between the levels in the profile, a more effective individual inservice program could be developed for each teacher.

Another area requiring improvement is the dissemination of information on newly acquired software. An improved system of getting the information to teachers is required. One strategy that might be effective is to have different teachers demonstrate software at staff meetings.

Having more than one person trained to handle technical problems arising during the day would be desirable. This would alleviate some of the pressure on any one individual who is fulfilling that role and ensure the continued use of the computer despite that one person's absence.

Footnote:

[1] See, for example: K.A. Leithwood (Ed.). Studies in Curriculum Decision Making. Toronto: OISE Press, 1982, pages 245-267.

Appendix

TEACHER BEHAVIOUR PROFILE

	STANDARD	COMPUTER USE	SOFTWARE USE
LEVEL I	has had no prior experience with computers		
LEVEL II	introduces computer in the classroom on a limited basis	knows how to set up computer in classroom and organizes students	chooses from suggested software for initial introduction to class
LEVEL III	computer is used with individuals (e.g. CAI) and for demonstrations to whole group	uses computer as another piece of audio visual equipment; provides greater input about computer use in schools	selects software for both small group and whole group instruction; provides greater input regarding software acquisition
LEVEL IV	uses computer for purposes other than CAI (e.g. LOGO) and is beginning to look at the quality of CAI software used	organizes effectively learning materials; organizes students and equipment effectively	begins to suggest software needed for classroom use with consideration to quality software
LEVEL V	feels confident about computer use in classroom and will use the computer for a variety of purposes	participates more in determining computer policy in the school	uses a greater range of CAI material and LOGO

COMPUTER EDUCATION AT THE JUNIOR SECONDARY SCHOOL

Barry Underwood
Campbell River School District

Innovation

The Campbell River Junior Secondary School has an enrolment of approximately 600 students in grades 8-10. Computer education began in September 1979 under the direction of a teacher, Barry Underwood . It was introduced because too many students were growing up with negative attitudes to computers; the business computer is becoming as indispensable and basic a piece of equipment as the telephone or typewriter; the computer is useful in the clerical handling and accessing of student information and in performing many specific school tasks.

A total of $15,000 was allocated to the school for computer education: $13,000 for hardware (computer system, printer, and card reader); $1,000 for maintenance; and $1,000 for supplies.

Implementation

The plan was to phase in the computer as we gained expertise and as we acquired the necessary equipment. Our first task was to establish a computer studies class. It started with twenty students, but ended with fourteen. The students came from two honours Mathematics 9 classes from the previous year. Our reasoning for selecting strong mathematics students was that we needed capable student supervisors in the computer room and programers who could design programs for school activities.

In the February - June semester in 1980, we offered another Computer Studies 9/10 option for fifteen students and introduced a Computer Studies 9/10 advanced option for eight students to accommodate those who wished further study. This was made possible by the acquisition of another Apple because we were doing our own maintenance and were purchasing a lower-priced card reader.

Starting in September 1980, we introduced a required Computer Studies 8 course of ten week's duration. We were able to handle classes of up to thiry students because we had interfaced the card reader to the Apple and were receiving support from the University of Victoria. For our grade 9 and 10 students, we retained Computer Studies 9/10 and 9/10 Advanced and added a program for the very capable student designated as Computer Aide. Since September 1980 we have not expanded our course offerings, but instead we have revised their contents because of the increased capability of the students and our access to a greater number of machines.

Who Did What

The computer studies teacher was given complete support by the principal. In addition, a number of teachers were involved: two taught the Computer Studies 8 course; the learning assistance centre made extensive use of the computer; an English teacher had her students write their essays on the computer; semester exams of the mathematics and physical education departments were marked by the computer; a number of teachers computerized their mark books.

Time

To provide students with "hands-on" experience, since September 1979 the computer room has been open from 7:00 a.m. to 10:00 p.m. Access is provided to those students taking a computer studies course or by special permission. Students choose four reserved one-hour time slots per week, but are allowed to use the machines at other times on a 'first come, first served' basis in this order: supervisor, Computer Studies 9/10, Computer 8, and "old" computer students. In the first three years, no games were allowed in the computer room; but beginning in September 1982, games were permitted in two half-hour time slots each week for students enrolled in a computer studies class.

Resources

During the first year of the program, it was felt that the $15,000 would purchase enough equipment to meet our objectives. But the more we did, the more we knew what we could do if only we had the equipment.

We were fortunate to work with the linguistic department of the University of Victoria on a Kwakwala Native Indian software package which we offered in the school as a computer course for teachers. These arrangements not only provided us with three machines during the 1980-81 year, but also access to expertise at the university. For the 1981-82 year, the school purchased two Apple systems when the University of Victoria decided not to offer another teachers' course. From February to June 1982, the University of British Columbia offered Education 217 in the school and supported it with two Apples. From September to January, another UBC Education 217 course was offered, but since there was no machine support from UBC, a rental arrangement was made. The teachers in the evening course were charged a rental fee of $60.00 which provided them with a machine for three weekends and access to a large software bank. With these funds, we were able to rent one machine.

The materials used in the computer studies courses were locally developed. The focus was to design "real" applications of the microcomputer.

The district's contribution to the professional needs of the teacher in charge was to send him to Portland in 1980 and to share the cost of a trip to Minnesota in 1982. The rest of the development was provided by the teacher. In order to acquire the expertise required to maintain the school projects, he found that he was away about fifteen weekends/year and needed to own a computer system.

Strengths

1. By the end of 1983 all students in the school have had an opportunity to take a computer studies course. Using the "MECC Computer Literacy and Awareness", we have pre- and post-test results that indicate our students have a degree of computer literacy.

2. We didn't anticipate the interest students have shown. Since the program began we have been able to assign after school hours for homework assignments and students have come back to the school in the evenings.

3. Students have been able to program any project that we produced: tutorial software, Kwakwala lessons, a Dolch Words package, and even a program that displayed the bids for the local Rotary during their TV auction.

4. Because of our careful budgeting, we have students do the maintenance on the machines.

Weaknesses

1. We never seem to have enough machines for students.

2. There was not enough time allotted to the computer studies teacher. He is expected to teach full time and provide such services as: recommending a software package for use in a classroom, providing working equipment for a teacher, setting up the computer for test marking, providing computer programs for school activities.

3. Other than the learning assistance centre, there has not been a large amount of instructional use of the computer, perhaps due in part to the lack of appropriate software.

In Retrospect

We have followed the rule that you buy the machine that best does what you want to do. As we wish to give a computer literacy course to every student in a junior secondary school, we feel that a card reader and microcomputer provide the most effective way of achieving our goal. You cannot handle large classes, unless it becomes possible to have fifteen microcomputers (two/student).

To become computer literate, we need to use the computer in every subject of the school, provided programs have been devised. But as it is not cost-effective to have a teacher do programing, 95% of the programs must be purchased. This purchase should be part of a school budget to insure that every aspect of the school is considered. Unless money is spent on maintaining an "informed" person, money is likely to be wasted on poor purchases and expensive maintenance costs.

A school needs to develop a computer lab as a home base where materials are stored, equipment is repaired, and large classes are taught. Classes such as English could be taken to the room to do a unit on essay writing or a science class could use it to study a simulation. Finally, consideration should also be given to the design of the room. It should be relatively cool, without rugs, but with floor panels so that there are no loose cords or cables, and equipped with L-shaped typing tables.

MICROS IN THE SENIOR SECONDARY SCHOOL

Jack Block
Coquitlam School District

In 1974 teachers at Port Moody Senior Secondary felt that computers were being used in a growing number of places throughout industry and society. Students were keen to have computer involvement, but the cost of computers seemed beyond the school's ability to pay.

In 1975 a grant of $22,000 was provided to the school for purchase of a Hewlett Packard computer, card reader, printer, and screen. The computer had only 8K of memory, but we were pleased to get it. Now we faced the question of developing a program which would incorporate the computer into the curriculum. Fortunately, we had three teachers on staff who had experience, interest, and some knowledge of computers.

To improve teacher acceptance, we conducted several seminars designed to explain the purpose and function of the computer in the school program. In 1976 computers were not nearly as well known as they are today.

Our goal was to promote computer literacy in the Basic language. We developed a course, Computer Science II, which has since become ministry approved. Students were required to become familiar with the operation of the computer and to learn some fundamentals in programing. To accomplish this objective, each student worked with a set of computer cards and ran a program with the card reader doing the input. This introductory course continues to work well, as we have one hundred and forty students enrolled in Computer Science II this semester. At present we have a waiting list of approximately forty students who can't get it this semester. From 1976 to 1979, we experienced increased demand not only for the introductory course, but also for a further course offering greater depth. A locally developed course in Computer Science 12 was approved by the ministry in 1980.

It was evident that we needed to rethink our goals and to expand our inventory in computer hardware. Through planning sessions we developed these goals:

1. To promote computer literacy through Computer Science 11 and Computer Science 12;

2. To promote computer assisted instruction in mathematics (drill programs), commerce, (typing tutor, word processing, accounting), science (data processing and drill programs), and English (spelling drills, word meanings, proofreading, and techniques of writing);

3. To promote computer techniques in learning assistance by work units coordinated with teacher lessons and written by our students;

4. To promote computer assistance in administration procedures: accounting (school), word processing, surveys (e.g. course planning, attendance), student records, and timetables;

5. To promote teacher use of computers: record keeping, testing, and notes.

To achieve these goals, we felt we needed the following computer stations: computer literacy (12), business (6), learning assistance (3), administration (2), teacher use (1), a total of twenty-four stations at an approximate cost of $125,000. The subsequent proposal generated $50,000*, which allowed these stations: mathematics (6), business (2), learning assistance (1), administration (1), teacher use (1)--a total of eleven.

To provide suitable accommodation for the computers, the district undertook approximately $30,000 worth of renovations which provided a pleasant glass-surrounded area with suitable tables to place twelve computers. The office and teacher computers were placed in a lockable office convenient for secretarial surveillance. Two computers were placed in the commerce area and one was placed in the learning centre.

When grants became available, research was done to explore different types of network arrangements. We became interested in a hard disk system known as the Corvus which is basically one disk with a memory capacity of twenty megabytes. This system demanded that the school be wired so that each computer could be connected to the disk. By scrounging and with considerable teacher and student time, the system was accomplished at a cost of $500.

As principal, I felt threatened by these machines which I did not comprehend. To incorporate computers into the total operation of the school, I would have to acquire sufficient knowledge and skill in their use so that I could discuss the pros and cons of computer programs. I spent the time and made the effort to master the fundamentals.

In a meeting with some teachers, the role of the computer in the school program was explored at length. It was agreed that in any plan of action or procedure the computer is to be in a service role providing and retrieving information for more effective teacher and administrator decision-making. The importance of person-to-person interaction was stressed: we did not wish to introduce changes which would impersonalize procedures such as student reporting and program planning.

---

* The district has not allocated funds for each school to acquire microcomputers. The funds approved for this school were in lieu of computer timetabling costs which all secondary schools receive.

Achievements

Seminars offered to school personnel from time-to-time are increasing acceptance of the computer among teachers. In my opinion, teachers who have no experience with computers are cautious, to say the least, about incorporating computer assistance.

Now in 1983, it is time for us to reflect on computer integration, today's climate of restraint, new advancements in the industry, and the needs of students. We also need to evaluate our achievements with computers in the light of broad educational objectives. The following show some achievements and projects in process:

1. Computer Literacy:
   - Computer Science 11 taught from 1976 - 1983 to approximately 120 students/year;
   - Computer Science 12 taught from 1981 - 1983 to approximately twenty students/year.
2. Learning Assistance:
   - Used by ten to eighteen students/day;
   - Six programs written by our own grade twelve students.
3. Computer assisted instruction:
   - Accounting is just beginning for thirty students/year;
   - Typing tutor;
   - Word processor.
4. Teaching:
   - Record keeping for three or four teachers (program written by a grade twelve student);
   - Testing.
5. Administration:
   - Attendance survey scheduler;
   - Course survey;
   - Batch input (cards) of course choices;

- Conflict matrix;
- Twelve simulated timetable runs in forty-eight hours;
- Course loads;
- Counselling information;
- Teacher timetable, subject timetable, room timetable;
- Timetable for each student;
- Search for timetable changes;
- Class lists;
- Alphabetical student lists;
- Accounting--BPI Program;
- Word Processing.

Evaluation

1. Relevance and Scope of the Goals:

- Computer Literacy - One hundred and forty students enrolled in Computer Science 11 and 12. Computer Science 12 students receive advanced standing at the University of British Columbia. Negotiations are underway for similar recognition at Simon Fraser University.
- Computer Assisted Learning - Teachers of mathematics and business are leading in this area. A number of teachers are making inquiries.
- Computer Assistance in Special Education - The one computer station is now on a twenty-minute reserve schedule. There is a steady waiting list.

2. Major Difficulties and Incentives:

- Finances - The cost of computers is high; hence, special grants are necessary.
- Lack of Experience and Knowledge - It seemed important that the administrative function incorporate the computer service rather than vice versa. There is the temptation to let the computer service determine the administrative model.
- The "Black Box" Syndrome - Many teachers and parents have a ready-made resistance to computer use. The innovation was not imposed by the administration, but promoted at the teacher level, especially by mathematics teachers.

- Incentives - Students' enthusiasm seemed to revitalize the mathematics department and, in a similar manner, student motivation was increased in the other departments as computers were introduced.

- Tendency to Play Games - After the novelty evaporated, firm policies were set-up to eliminate student games on computers, because with only eleven computers, no free time was available. The network makes control of computer time more effective.

- Need for Inservice - Some teacher oriented inservice sessions have been offered on a voluntary basis.

3. Cost-Effectiveness:

To make computers cost-effective takes time. The school planned a development period of three years, but has not yet reached what would be a cost-effective operation. We have put more into it than we have received at this point.

4. Why Are We Doing It?

- We are looking for a tool that will make the tedious task of information management more convenient, more accurate, and more accessible.

- We recognize the social impact of computers in every walk of life. If we want to take our responsibility seriously, students of the future need to understand the use and potential use of computers in our society.

5. Present Problems:

- Money constraints - We need $100,000 to provide adequate opportunities for teachers and students to learn the language and applications of computers.

- Logistics - How do we incorporate the computer in a manner that least disrupts the educational process? We are advised to "walk before we run". Go slowly! At present we run dual procedures until the computer service is functional. This approach takes time and resources. Eventually we may save time but while we are timetabling in both modes--manual and computer--much time and energy is used.

6. Future Plans:

- Upgrade inventory.

- Encourage the use of Logo language in elementary schools.

- Encourage use of Basic language in junior secondary schools.

- Upgrade Computer Science 11 to emphasize language literacy in computers.
- Provide more independent 'hands-on' experience for advanced students.
- Expand computer assistance in learning as the demand grows from the classroom.
- Expand computer assistance in remedial learning.
- Develop student record keeping in administration.
- Expand the use of computers for counselling (programing and career counselling).

Summary

The chief conclusions we offer at this time are:

1. Schools have a responsibility to prepare students to be computer literate and to understand the influence of computers on their lives.
2. Computers perform quickly and accurately tasks which are tedious and time consuming when done manually.
3. The cost of implementing computers is high.
4. Administrators need to lead staff skillfully into the use of computers. Needed are adequate inservice, careful development of positive attitudes among users, and support from district personnel.
5. Careful planning is essential to determine the tasks to be performed.
6. A carefully designed long-range plan of action should be in place.

MANAGING THE MICROCOMPUTER: A DISTRICT PLAN

Barry MacDonald
Vancouver School District

The Vancouver School District has had an involvement with computers dating back to the late sixties. Prohibitive costs, complex hardware, and scarce information limited growth at that time. In 1977, however, Vancouver introduced the first microcomputers into schools. These desk top computers were inexpensive and far less threatening to teachers than previous models. Prices continued to drop, programs became more available, and the hardware became "user-friendly". Schools began buying microcomputers with funds raised through bake sales and raffles.

In the Spring of 1981, the deputy superintendent requested that the head of program resources determine present district involvement with microcomputers. It was found that usage was spreading in an uncontrolled manner from administrative applications to the teaching of computer literacy in our seventy-six elementary and eighteen secondary schools.

In September of that year, the head of program resources presented a planning document outlining roles and responsibilities regarding the use of microcomputers. This document has succeeded in facilitating implementation of a wide-range of district projects that were to follow. Responsibilities for involving teaching literacy and programing, piloting CAI courseware, and specific subject content were divided among the elementary coordinator, district computer specialist, business education and industrial education coordinators, and secondary mathematics/science consultants. The coordinator of audio-visual services was responsible for selection, purchase, maintenance, and distribution of hardware and software.

Actual implementation of this planning document began in January 1982 with a district survey to establish a baseline of present school usage and hardware. A number of major district projects have since been initiated:

1. Elementary Literacy Program

A district curriculum committee developed a comprehensive program of elementary literacy focusing on the use of the computer in a variety of subject areas from kindergarten to grade seven.

2. Computer-Managed Instruction Pilot

The Holt/ECCO (Electronic Classroom Curriculum Organizer) program is being tested in an elementary school. This management program for the mathematics curriculum may be extended to include the language improvement goals developed by the district's Project BUILD.

3. District Micro Labs

Two labs of microcomputers with disk drives and printers are used to support three district programs. These labs are moved to a different elementary school every six weeks. During the day, classes pursue the elementary literacy curriculum; after school, time is committed to district use. Professional development workshops in both labs every afternoon are instructing hundreds of teachers in introductory and programing skills, in word processing, and in other applications. This district program is expected to increase greatly the use of microcomputers in schools. In the evenings and on Saturdays, the labs are used by the district's community education services for adult education available to the general public.

4. District Software Collection

The audio-visual services department released a catalogue of over 1000 microcomputer programs covering subjects from Art to Zoology. To encourage teachers to select resources based on curricular relevance, this curriculum-based collection is catalogued with the same system used for films, video cassettes, and other media.

5. Business Education Program

A number of microcomputers with software were purchased for word processing, data-base management, and financial duplications for use in business education programs. A month of intensive teacher training workshops preceded their introduction into schools.

6. Administrative Applications Pilot

Administrators, seeing the use of the computer in business applications, are beginning to recognize its value as an office tool. Six schools are currently piloting a variety of applications for the district. They are being used for pupil data management, word processing, school communications, IEP management, class scheduling, accounting, and attendance. Like the micro labs and the CMI Pilot, these programs are monitored on an ongoing basis by the district evaluation services.

7. Secondary Computer Science

The secondary program is supported with 64 remote terminals connected to a Prime main-frame computer. This large system gives senior students access to advanced computer facilities. The use of microcomputers is being considered to supplement this program.

8. Industrial Education

Each secondary school has a microcomputer for electronics programs in industrial education. It is used as a controller interfaced to regulate other electronic devices. Smaller microcomputers designed by electronics teachers are being used to introduce the principles of digital electronic circuitry, machine language, and microcomputer techniques.

The microcomputer is a general purpose tool that can serve in a wide variety of educational applications. The importance of a district focus on the use of computers is fundamental to the management of constructive change that takes advantage of the opportunities offered in an age of high technology.

V

IMPLEMENTING PHYSICAL EDUCATION PROGRAMS

DAILY PHYSICAL EDUCATION: A PRINCIPAL'S PERSPECTIVE

John Parry
Maple Ridge School District

During 1979-80 the school district initiated a series of subject area reports. The report by the Physical Education (Elementary) Curriculum Committee examined the status of physical education in the district and made recommendations. Recommendation #9 stated that: "In 1980/81 school year, a pilot program be instituted in a school in District #42 with a view to examining problems associated with daily physical education". This recommendation was discussed by the staff of Pitt Meadows Elementary in June 1980. It became one of the factors influencing the decision to proceed with this project.

During 1979-80 the school took part in the ministry's "self assessment" program. During the assessment, the following strengths and weakness were identified:

Strengths: good gym and equipment, adequate playground, excellent co-curricular program supported by staff and students, utilization of good resource people on staff.

Weakness: no coordination between grades.

Further, the "self assessment" used in the district included an external evaluation team visitation. In the team's report, which was generally favourable, recommendations were made:

> "That a greater physical fitness component be part of the P.E. classes.
>
> That a greater emphasis be placed on dance, gymnastics and creative movement, as outlined in the Ministry of Education Guide.
>
> That the staff, in addition to the development of a general curriculum for the school, also look at expanding the program to provide for each child some scheduled physical activity every day. This appears to be a strong emphasis of the future for the elementary physical education curriculum in B.C."

These recommendations were other factors influencing the staff decision to move towards a daily physical education program. At this time the Administrative Handbook was circulated by the Ministry of Education; this handbook encouraged daily physical education.

In late June 1980, a meeting was held with teachers who expected to be at the school during the 1980-81 year. A plan was presented and unanimously (and in the majority of cases, enthusiastically) accepted, to proceed with implementation of daily physical education. All new teachers have been made aware that a school expectation is commitment to the program.

Principal's Role

One of my main responsibilities in the summer of 1980, was to follow through on all of the recommendations that originated from our self assessment program. The daily physical education was one in which I was personally interested and for which my background was appropriate. Some important factors were present at this time: the director of instruction was supportive of physical education and of university involvement in staff development; the availability of the right university person to assist with the program; and a high level of staff expertise and interest.

The initial work became one of the most important facets of my involvement:

1. assembling the human, financial, and equipment resources;

2. leading a small group of influential teachers on staff so that we developed a fairly clear picture of what the program would look like after implementation.

In carrying out my responsiblities as general catalyst and resource person to the project, I used the following summary of the principal's role in implementation, distributed to all Maple Ridge principals by the assistant superintendent:

1. Formulate a clear mental picture of what the change should look like when it is in place before you ask your teachers to get involved.

2. Identify, in cooperation with district staff, difficulties teachers might have in implementing the intended change.

3. Know what the range of existing practices in your school is before making moves toward the preferred status.

4. Know what is the "same" about the new program as well as what is "new".

5. Remember that the principal's focus for change should be on the people who must make the change, not on the support materials and equipment required for the change.

6. Select a teacher to assist you in providing leadership in the development of a school-based implementation plan.

7. Demonstrate that you believe the change is important to children.

8. Understand that complex innovations can take three to five years to implement.

9. Ensure that frequent, short meetings are held where all teachers involved in implementing a change can discuss the strengths and weaknesses of the change.

10. Be prepared to take immediate action on concerns that teachers have about the program or the program implementation process.

11. Ensure that no teacher is faced with more than one major change at a time.

12. Do not be satisfied with one-shot workshops. Encourage in-house inservice leaders.

13. Make sure all materials and equipment are ready to go before you formally implement a new course or program.

14. Foster a school climate that encourages planned risk taking.

15. Ensure that inservice is based on what teachers want to hear; not on what somebody wants to say. (The principal must ensure that teachers see a need).

16. Know who is/is not moving toward the preferred status.

17. Release teachers from regular duties so that they can see how others are implementing new programs.

Resources

The key human resource was to be Peter Moody from the Faculty of Education (UBC). I knew him personally and had worked with him as a colleague; our ways of dealing with people and our physical education methodology were compatible. We could assume separate roles in the project, and we could share an open, confidential working relationship. I relied heavily on Moody's effectiveness in working with teachers, and my faith in his ability allowed us both to progress quickly over early rough spots.

Support was obtained from the director of instruction and the district principal (elementary curriculum). The consultant and I had several meetings for the purpose of developing a plan which was endorsed by the district office.

Finances were obtained through the district office for the appointment of the university consultant to the district. Plans were also laid, but not approved, for monies to be available through the school budget to upgrade supplies, and through the school replacement budget to upgrade some major equipment. Our school was well equipped.

Staff Involvement

Recognition had to be made of the fact that the staff had not yet adopted daily physical education for the school year 1980-81. Information was distributed among the staff about districts and schools that had success with daily physical education.

During May 1980, I identified five teachers who were supportive of the general idea and gradually involved them in the planning. Together we discussed the pros and cons of various approaches so that by the time these were presented at the June staff meeting, they were our ideas, not my ideas. At this meeting, I commented: "As you all know, one of the recommendations arising out of our self-assessment was to provide daily physical education for all students. You've also heard a lot of talk about possible UBC help in accomplishing this. Does anyone have any questions or comments?" The five staff members who had been involved in direct discussions all spoke up that it was an excellent idea and that they were interested. I warned the staff that we might be getting into something that would require commitment of time and energy. Despite my warning, the staff unanimously approved that the school embark upon the project and that a committee develop a comprehensive plan.

Planning

Planning of the project was done by the school committee. My role as principal was to suggest ideas and oversee a sensible schedule that would not go too fast.

Immediate steps were taken to increase the knowledge of the committee through attendance at workshops, and to increase the awareness of all teachers who would be expected to use unfamiliar materials and teaching strategies. Coupled with these steps was the building up of a picture in the minds of all as to what things would look like when the new program was in place. Teachers were expected to change beliefs about physical education, but this change could not be rushed. (Dr. Moody and I expected that it would take a year to accomplish.)

Implicit in the project was an expectation that it would enhance implementation of daily physical education throughout the district. To this end the various materials and activities developed were filed for future use, and recommendations were proposed for expanding daily physical education into other schools.

Conclusion

The implementation of daily physical education in an elementary school cannot be viewed in isolation. The regular school program must be maintained at a high level, the atmosphere kept positive, and additional initiatives dealt with on an ongoing basis. Superimposed on these normal functions is a new program with its demands of time and energy. It is the responsibility of the school principal to keep in balance implementation demands and the maintenance of a positive stress and performance level. Although a staff may decide that implementation is a priority, its success must be viewed in terms of the impact of the part upon the whole.

Positive aspects of the project have been reviewed by the staff and the district. Based on frequent observations, the quality of instruction could be described as superior or, in some cases, excellent. There is increased general awareness of the subject. The attitude of most staff is enhanced and even personal teacher fitness is improved. External support for the program could be withdrawn, but the professionalism and expertise of the teachers would ensure a continuation of quality daily physical education.

DAILY PHYSICAL EDUCATION: A CONSULTANT'S PERSPECTIVE

Peter R. Moody
University of British Columbia

Background

In British Columbia the teaching of physical education at the elementary level has a history of oversight and neglect. In most elementary schools teachers have been responsible for planning and teaching physical education to their homeroom classes. The pre-service professional education of elementary teachers provides insufficient preparation for this responsibility, and so for many children, physical education lessons provide a meagre experience of a limited number of activities on a twice weekly basis.

In 1971 the Ministry of Education issued a revised curriculum guide for elementary physical education. The new guide quite clearly advocated that:

1. physical education lessons should be taught to all elementary school classes on a daily basis;
2. all school physical education programs should include well developed lessons in at least the areas of games, dance, and gymnastics; and
3. teachers should employ a variety of appropriate teaching styles ranging from direct (teacher-centred) methods, and through limitation methods, to exploration and discovery (pupil-centred) methods of teaching.

In an apparent attempt to assist teachers in the adoption of what was recommended in the guide, the Ministry of Education sent to each elementary school in the province a set of fourteen resource books dealing with various aspects of physical education. No other official action was taken except to revise and re-issue the guide in 1975, but dedicated individuals provided many one-shot workshops.

Initiation of the Project

In the Fall of 1979 the Pitt Meadows elementary school staff under the leadership of the principal conducted an internal evaluation of the school program. In February 1980 an external evaluation team comprising local administrators conducted a second assessment of the school program. Following receipt and study of the reports of these two evaluations, and subsequent to discussion and agreement, the staff and principal decided that special emphasis would be given to improving the school's physical education program in the year 1980-81. The nature of the improvement was to be the implementation of a program which conformed to the precepts contained in the 1975 provincial curriculum guide for elementary physical education.

In complying with this staff decision, during June and July 1980 the principal arranged for the services of Peter Moody (Faculty of Education, U.B.C.) as a consultant to assist in staff development in the area of physical education.

It was agreed that, in addition to any time required for the acquisition or preparation of material and other resources, the consultant would make twenty day-long visits to the school for the purpose of working directly with the school staff, principal, and pupils. In subsequent discussions involving school district and university officials, it was agreed that the consultant would spend 100 hours in instructional professional development activities at Pitt Meadows School, funded jointly by the university and school district.

Purpose of the Project

School district officials, the principal, and the consultant agreed that the project would have two goals:

1. To design and implement a quality daily physical education program.
2. To monitor, document, and examine the processes used in implementation.

The first goal which was to serve the needs of Pitt Meadows School, is further delineated by these specific objectives:

1. To ensure that all pupils take part in at least three periods of physical education each week (to be phased in by December 23, 1980). Subsequently, to extend this number to four or five periods per week.
2. To improve the quality of instruction in physical education.
3. To increase the number, variety, and propriety of the activities in physical education lessons.
4. To assemble a suitable bank of materials and resources for school use.
5. To assess the results of increasing allotment of time for physical education.
6. To assist teachers in developing and expanding their knowledge and understanding of physical education (including substantive content and appropriate teaching styles or strategies).
7. To maintain and/or improve positive attitudes toward physical education on the part of pupils, teachers, administrators, and parents.

8. To ensure full adoption of a quality daily physical education program through the commitment of teachers.

The objectives of the second goal were further clarified in September 1980, when it was agreed that the Pitt Meadows project might be viewed as the first stage of a three-year plan to encourage the adoption of quality daily physical education:

Stage I - While implementing the program at Pitt Meadows, records would be kept and resources developed to serve as the underpinnings for the next stage.

Stage II - Four to six schools would be added to the project, with the further development of materials and procedures.

Stage III - More schools would be added to the project until all district elementary schools (22) had implemented programs.

Implementation Procedures

1. Planning - A plan based on the outline below was adopted and circulated to all those involved in the project in September 1980. Various elements of these plans were altered as the project developed. Most alterations were made as a result of teacher wishes or concerns (or what the principal and consultant perceived to be issues which were negatively affecting teachers). For example, pupil pre-tests were planned for October 1980, but teachers expressed their concern and the tests were delayed. Also, the consultant initially attempted to make notes whilst observing teachers with their classes, but negative teacher reactions caused him to abandon this as a method of assisting teachers.

Date	Personnel and Activity	Purpose
June 1980	Consultant visited school.	To assess the contextual situation for the project proposal.
September 1980	Consultant and principal met.	To finalize the project plans.
September 1980	Consultant met with the principal, primary teachers group, and intermediate teachers group.	1) To discuss teacher concerns, problems, and suggestions. 2)To assess facilities, equipment, and timetabling. 3) To assess school resources (teacher expertise, print materials, audio-visual).
October 1980/ March 1981	Consultant made eighteen day-long visits to meet and work with all teachers: teaching, teaming, observing, making verbal and audio-visual presentations, attending individual and group discussions.	1) To present materials and methods for the teaching of games, dance, gymnastics, and field activities. 2) To assist teachers in interactive teaching situations. 3) To learn of teachers' successes, concerns, and suggestions.

Date	Personnel and Activity	Purpose
January 1981	Consultant, principal, and trained research assistants conducted knowledge, attitude, psychomotor skills, and physical fitness pre-tests.	To provide baseline data in order to measure changes in pupils.
May & June, 1981	1) As for January, except to conduct post-tests. 2) Teachers, principal, consultant, and research assistant.	1) To provide data indicative of pupil learning and changes. 2) To administer questionnaire and conduct interviews relevant to the project and its outcomes.

2. Roles - There were essentially three roles involved in the implementation process: those of building principal, teacher, and project consultant.

(a) As an educational leader the principal arranged for the initial school program evaluations which brought to light certain deficiencies in the school's physical education program. As an opinion leader he was persuasive in helping his staff decide that the implementation of a quality daily physical education program should be a staff development priority. As an administrator the principal ensured the support of his staff before making arrangements to initiate the project as noted above.

Once the project was under way the principal served to facilitate the implementation plan. In this role he ensured the acquisition of needed equipment, rearranged timetables where necessary, freed teachers to attend meetings as the situation warranted, and arranged for staff workshops. Finally, as an enthusiastic and knowledgeable supporter, the principal projected a continually caring and helping attitude toward teachers and consultant.

(b) Teachers varied in the role expectations held for them for some very important reasons: background and experience in teaching physical eduation, attitudes toward physical activity, abilities as a teacher, and attitude toward the project all varied -- with some extremes in both directions. In discussions, and subsequently in the form of written memos, teachers were asked:

- to form two groups (one primary, one intermediate) and appoint a leader to present and coordinate the efforts of each group;
- to take problems and comments to group meetings, to the principal, and to the consultant for discussion;
- to teach three physical education lessons weekly up until Christmas break (and to increase this to four or five lessons by June 1981);

- to adapt lesson materials and keep records;
- to teach activities according to the schedule agreed upon.

(c) The role of the consultant was that of information-giver, problem-solver, professional coach for teachers, and supporter of teachers:

- made almost regular, weekly visits to schools;
- prepared and provided appropriate curriculum materials including lesson plans;
- gave demonstration and team-teaching lessons;
- provided group workshops;
- presented a reinforcement of the rationale for the project, and identified possible issues and problems in the implementation process;
- observed and advised individual teachers;
- coordinated the school physical education program (together with the school representatives and principal);
- provided memos to the total staff and individual teachers to help coordinate routines for expectations of pupils and to reinforce discussions;
- arranged for and assisted with pupil and program evaluation;
- assisted in the preparation and writing of proposals and reports.

3. Time - Initially, the consultant's time was spent mostly in preparation and in group meetings. Subsequently, the consultant spent much of his time in classes and discussions with individual teachers. Teacher release time for demonstration lessons, consultations, and meetings were usually facilitated by the principal through:

- having teachers share classes;
- hiring substitute teachers;
- standing in for teachers;
- arranging activities involving several classes (often conducted by the principal);
- arranging for teachers to share gymnasium space or team teach;
- assigning some regular staff meetings for use by the consultant;

- arranging for the consultant to be available at recess, lunch time, and after school;

- stressing the importance of teachers' using the lesson plan provided while being observed by the consultant.

4. Resources - The school was well equipped for physical education. Lack of space was remedied through effective timetabling, use of the outdoors, and gymnasium activities engaging several classes. Print curriculum materials were gathered eclectically and prepared for use by the consultant. Materials (including some audio-visual materials for workshops with teachers) were developed by the consultant, obtained from neighbouring school districts, and obtained from appropriate texts and programs (e.g., Premier Sports Award). Teachers, at the school, with special teaching competencies were encouraged to demonstrate for and to lead their colleagues.

5. Professional needs - Teachers' professional needs were addressed as variously described above. In particular, the consultant sought to team-teach with, to observe, and to coach individual teachers. The principal also encouraged teachers with his frequent presence in classes, with praise, and with activities to facilitate and otherwise support teachers' efforts.

Major Strengths and Weaknesses

1. Strengths - Assuming that the processes reported on here date from the original determination of needs by the school, the following strengths are identified:

- accurate, data-based determination of need;

- clear resolution of purpose with a large degree of staff consensus;

- research literature dealing with implementation processes was used to guide the project;

- role filled by the principal;

- commitment and competencies of most teachers;

- flexibility of programing;

- suitability of lesson materials;

- social interactions;

- expertise of consultants;

- positive reactions of pupils;

- teachers were encouraged to develop at individual rates;

- the development of a well balanced, sequential program for most grades;
- the project was not costly.

2. Weaknesses - Some of the items mentioned below are perhaps issues rather than weaknesses:

- not all teachers perceived the program as desirable or applicable to them; some felt they had been pressed into the project;
- insufficient time for all teachers to interact fully with the consultant;
- undue pressure placed on teachers by linking the project with a research investigation;
- the consultant's university duties placed some constraints on his availability;
- the initial actions of the consultant as a note-taking observer caused teachers to become apprehensive.

3. Outcomes - Some of the outcomes were anticipated, some originally only vaguely perceived, and others entirely unexpected:

- This project led to the definite formulation of a district policy and plan to implement quality daily physical education programs in elementary schools throughout the district over at least a three-year period.
- The intermediate representative teacher was appointed as the district helping teacher (half-time) for the subsequent district implementation program.
- Some teachers who initially resisted the project through apprehension or disinclination were eventually "won over".
- The school acquired a bank of resource materials for future use.
- The school achieved local newspaper publicity for its physical education program.
- The principal and staff celebrated their competency and confidence by inviting colleagues throughout the district to observe them teach physical education.
- As a means of self-improvement, and of assisting in pre-service programs, some teachers allowed themselves to be videotaped while teaching.

- A full report of the implementation project was published by the Educational Research Institute of British Columbia (Report No. 82:13).

Recommendations

1. Before attempting to implement educational innovations, care should be taken to ensure that all necessary physical conditions exist (or will be made available at appropriate times).

   Rationale: The major task of the implementation process is to effect in people changes which are more readily achieved by exercising control over non-sociological factors.

2. Teachers should be presented with a sound rationale for accepting the proposed innovation. They should see it as better or preferable to existing practice.

   Rationale: If teachers are convinced that a proposed innovation is acceptable and desirable to them, they will seek ways to implement it; if the innovation is not acceptable, they will seek ways to circumvent or subvert it.

3. Basic curriculum materials which accurately interpret and reflect current educational concerns and "best practice" should be readily available for use at appropriate times. Teachers should be assisted and encouraged to adapt the materials in acceptable ways.

   Rationale: A degree of prescription may be necessary in order to ensure that the proposed innovation is properly interpreted; teachers rarely have the time or ready knowledge to devote to the preparation of detailed curriculum materials; teachers should be enabled to meet the particular needs of their pupils.

4. All elementary school teachers should be urged (assisted, required) to ensure that their pupils engage in quality daily physical education for at least three instructional and two fitness physical education lessons weekly.

   Rationale: Quality daily physical education currently represents the only means of assuring that virtually all children receive the movement experiences necessary for physically healthy lives and for learning knowledge, attitudes, and skills which will enhance the quality of their lives. Furthermore, the fact of daily physical education appears to be related positively to improved pupil behaviours, self-image, and academic performance.

5. If physical education non-specialist teachers are to be required to teach the bulk of physical education lessons, then a system of inservice

education or professional development, together with appropriate inducements, must be prepared in order to ensure that teachers acquire the necessary knowledge and understanding.

Rationale: Pupils may show greatest benefits when taught by physical education specialists; but, if such an arrangement is not economically or educationally acceptable, then to ensure that pupils are not deprived, physical education non-specialist teachers must be assisted in developing their knowledge and skills as necessary.

6. Parents should be kept informed about school physical education programs and the participation of their children in relation to the goals of physical education.

   Rationale: Parent attitudes undoubtedly influence the attitudes of their children. It is assumed that well-informed parents will have positive influences on their children's attitudes toward and participation in the physical education program.

7. Sufficient time should be allowed for implementation projects to achieve success. Varying amounts of time may be required, but major innovations (such as the one reported on here) probably require a number of years to achieve an acceptable level of adoption.

   Rationale: For various reasons, including pre-existing knowledge, attitude, aptitudes, and abilities, teachers adopt innovations at varying rates. The degree of change necessary for some teachers to achieve full adoption seems to require more than the one year allotted this project.

8. The responsibility of teachers with respect to Ministry of Education directives should be clarified.

   Rationale: If teachers are to be expected to comply with directions, then they must be provided with all that is necessary for them to achieve the set goals of the directive. If teachers are to be allowed to exercise discretion in following directives, then ways must be found to convince them of the need and desirability of complying with them. In these instances, teachers should be encouraged to develop ownership of the program (as opposed to having it imposed upon them).

VI

IMPLEMENTATION CONCERNS

MONITORING CURRICULUM IMPLEMENTATION

Harry Hufty
Prince George School District

Introduction

Implementation institutes in the province over the past three years have had as their broad focus the planning and implementing of educational change. There have been numerous opportunities to interact with experts in the field of implementation, with ministry staff, and with our colleagues. We have learned of the complexity of the change process; of the critical roles played by teachers, principals, and district administrators; and of the elements that characterize whether the desired change has occurred. We have also had described to us change projects undertaken in a number of other school districts. These have provided us with opportunities to test our collective knowledge of implementation as we analyzed the processes used to bring about changes.

The purpose of this paper is to deal with monitoring curriculum implementation. In order to accomplish this purpose it will be useful

- to review some considerations that are essential in monitoring curriculum implementation;
- to describe two curriculum implementations introduced in Prince George, one in 1978, the other in 1981;
- to analyze the elements in implementation which denoted success and those which did not;
- to describe the procedures employed in monitoring the implementations;
- to present a systematic method of curriculum monitoring to improve implementation.

Fullan and Park[1] have provided a framework of ten factors which can be used in analyzing curriculum implementation:

1. Multiple guidelines (overload);
2. Board and community support;
3. Information system;
4. Clarity and need for change;
5. Quality and availability of materials;
6. Principal role and support;
7. Consultant role and support;
8. Quality and amount of inservice assistance to teachers;
9. Teacher/teacher interaction;
10. Availability and use of external resources.

Other useful frameworks are available for examining curriculum implementation, but they often require a higher level of involvement of staff -- a luxury not always affordable -- or they are too complex to be used easily.

Implementation of Elementary Science

The implementation in the Prince George School District of the elementary science program, introduced in 1978 by the Ministry of Education, involved the following steps:

1. Establishment of a steering committee to review and analyze the old and new curricula to identify differences between them, to determine core learning outcomes, to develop an implementation timeline, to agree on a plan, and to establish guidelines for textbook selection.

2. Striking of a task force to develop a core guide for the program. The guide contained: a) a description of the core learning outcomes for each grade level and a list of key processes and skills, b) a core overview and planning guide for the school year, and c) teaching suggestions for each level. The guide emphasized an approach that would employ all the provincially recommended learning resources in teaching the objectives for each grade.

3. The training of a teacher from each elementary school in the district to serve as that staff's resource person (PREP) and advocate of the district core science guides.

4. Informing principals at a district principals' meeting of the attributes of and changes in the new curriculum, outlining implications for supervision.

5. Introduction of the program to school staffs.

6. Informal monitoring of the new curriculum once in place through contact with principals and PREP teachers. PREP teachers met periodically over the two years 1978-80 to identify concerns with resources, materials, time, and the core planning guide.

7. An interim evaluation, consisting of a questionnaire administered to a random sample of 135 teachers and a series of tests administered to a sample of students at each grade level.

Implementation of a Kodaly-Based Elementary Music

The elementary music program offered in the district since September 1981 is derived from the goals of the 1971 provincial curriculum guide. The specific learning outcomes, the program content and resources, and the teaching methodology are Kodaly-based. All aspects were developed locally. The program was adopted as a result of a comprehensive evaluation of all music programs offered in the district (elementary music, band, string, guitar, choral).

The major assumptions of the program include the belief that a general music education is important for all students (the evaluation found that music education in the district was not consistent, and that some children received no systematic instruction in the curriculum), that the generalist classroom teacher, properly prepared, can provide the necessary instruction; that a program should be developmental; and that the implementation of the program would require district support for a number of years.

A further key assumption was that participation in the program should be voluntary; that is, the teachers and their principals in each school were given the option of 'enrolling' in the program, provided they would commit themselves to the inservice and curriculum. To this date, more than 80% of primary teachers in the district teach the Kodaly program.

Implementation of the program followed these steps:

1. Adoption by the trustees of recommendations for a comprehensive, developmental,elementary music program, based on Kodaly methodology.

2. Appointment of a steering committee to work with district staff in the development of an implementation plan.

3. The development of a core program for the first year and an overview of the future development of the program.

4. Distribution to principals of a document describing the program, its methodology, implementation strategy, and voluntary aspects of the program. Subsequently, provision of an intensive inservice program based on this document. Principals, also, were requested to approach their primary staffs to determine the level of interest.

5. The appointment of two district Kodaly 'advisors' was to provide an on-going inservice program, regularly scheduled classroom visits to support the generalist teachers through consultation, observation and demonstration, and the development of resource materials and the Kodaly curriculum.

6. Introduction of the program in September 1981 to kindergarten and year one teachers (160 participated), and to year two teachers in September 1982.

Analysis

The approach adopted for the implementation of each of these programs reflects, to a considerable degree, the knowledge and attitudes prevailing in the district at the time they were introduced. In both instances there was considerable success. There was careful attention given to planning, to the involvement of teachers and principals in various aspects of the implementation; there was a strong mandate (in the case of science from the ministry; and, in music, from the board); there was local development of curriculum materials; good leadership from the district office; and ample opportunities for inservice.

Missing from both situations were regular communications between district curriculum staff and teachers and between district curriculum staff and principals; significant involvement of principals; and the systematic application of theory-based approaches to implementation and to evaluation.

In each implementation there were also unforeseen impediments. In science, the implementation mandate and the introduction of resources occurred at the same time as the first provincial science assessment, rather than as a result of assessment. The curriculum guide was published in interim form, and the final guide, with some changes, did not appear until 1982, the same year as the second provincial science assessment. In music, not only were there difficulties in locating staff to fulfill the 'advisory' role in the first year of implementation, but also there was a staff change. And, with provincial restraint measures there was a dramatic reduction in the ability to provide the planned level of inservice to teachers.

Applying the Fullan and Park framework to the implementation process permits a more complete view:

1. The multiple quidelines element refers to the degree of overload faced by teachers; that is, if there are too many innovations occurring at the same time there is an inevitable effect on implementation. The elementary science program was introduced in the district in the second year of daily physical education as a mandated program, at the same time as a district-developed mathematics test bank, and one year before the implementation of the first stage of the language arts program. Music was introduced at a time when other curricular changes at the primary level were few.

2. Board support for science was incidental. However, because there was a provincial mandate, all schools accepted the commitment. For music, board support was strong.

3. In neither implementation was an adequate information system in place.

4. The need for change, and clarity of change, were almost universally accepted, either through acceptance of the mandate or through recognition of the need at the school level.

5. Materials were developed to support both programs. These are now in widespread use throughout the district.

6. The role of the principal in both implementations was neglected. Steps should have been taken (and are being planned in the future implementations) to involve the principal far more directly as the most significant actor in the change process. This involvement should include many of the same elements as in training teachers for the change, but should place particular emphasis on the principal's role as supervisor, leader, and manager of the implementation process -- as the agent of change in the school.

7. In elementary science, district staff leadership provided most of the direction, planning, and development of the change process. However, staff responsibilities included all curricula K-12, but no one person devoted a

major proportion of his/her time to the tasks of implementation. In music, with two full-time 'advisors' on staff, whose exclusive focus was the support of the program, and their immediate supervisor, who provided the curricular leadership and direction, there was clear, identifiable district commitment and support.

8. Inservice assistance was provided to teachers in both implementations, but the delivery models were distinctly different. In science, the inservice plan was based on the traditional 'military' model, wherein district staff inserviced the PREP teachers from each school. They, in turn, were expected to provide inservice to their own staffs. Several sessions were held with PREP teachers during the first year of implementation, but none in the second. In addition, two members of district staff served as resource persons to work with school staffs during school-based professional days.

In the music program, one-half day inservice sessions were scheduled monthly in order to acquaint teachers with concepts, resources, and activities for each curriculum objective. This session was followed by regularly scheduled classroom visits from the music advisors, who demonstrated appropriate practices and consulted as required with the teachers. In addition, after-school feedback sessions were scheduled throughout the year. Thus, teachers had the opportunity to learn the skills and content, to practise them before teaching them, to teach them, and then to discuss their effectiveness with colleagues.

9. Interaction among teachers in both programs occurred largely at the inservice sessions. In science, if suitable opportunities were available, interaction among staff members could occur; but most teachers found only limited value in their communication with the PREP teacher. In the music program, such interaction was structured; that is, it occured by design.

10. Little use has been made in either program of external resources, partly because of geography and partly because there has been an attitude of self-sufficiency in the district.

All elements demand monitoring at different stages, including at the outset, the monitoring of planning procedures. Some specific steps to provide direct feedback have also been taken; these fall readily into the generally accepted framework of monitoring.

Monitoring

The approaches taken in monitoring the implementation of the elementary science program included the informal feedback sessions that were part of the PREP teacher meetings. There was also feedback collected informally from discussions with principals and with school staffs, especially during the first year. Because of other priorities, the involvement was not sustained into the second year. Nonetheless, the feedback provided some opportunities to make corrective adjustments in the program over the course of the first year.

In the second year, a more formal approach was taken. Teachers were surveyed, using an instrument adapted from that used in the provincial science assessment, and asked for their judgements on a broad range of issues. Among the major outcomes of the survey, the results indicated a heavy reliance on one of the commercial programs, only moderate support for the district-produced core guides, and marginal to low support for the effectiveness of the PREP concept. Although these results were partly anticipated, there was little expectation of the extent to which teachers had chosen to teach science as if it were a reading program, or the degree to which they would choose the Doubleday series of textbooks. Another finding was that many teachers rated the importance of teaching science below almost all other core areas of the curriculum.

At the same time the questionnaire was administered, tests were developed and given to samples of students at each grade. The results of the tests were analyzed and reported to schools for their action in addressing deficiencies or in capitalizing on strengths. The only action to emerge from these monitoring activities thus far is the development of a comprehensive elementary science management system, a voluminous guide that specifies by level goals and learning outcomes, provides a bank of test items for each, and suggests teaching strategies. Implementation of this product is scheduled for September 1983, a full five years after the introduction of the program.

The music program is currently in its second year of implementation. Thus far, monitoring occurs in the structured feedback sessions during the classroom visits by advisors and during inservice sessions. On the basis of input in the first year, significant changes were made to the curriculum: there have been changes in the focus of the classroom visits to provide more consultation and somewhat less demonstration time.

Clearly, important elements are missing from the approaches to monitoring described here, but some key elements are present. These have been described using Fullan's framework. Input from principals, however, on a regular and systematic basis at every stage of implementation must occur. This input must include their involvement from planning through inservice to involvement in the review of curriculum objectives and selection of learning resources. All principals will not desire or be able to participate to this degree, but the opportunities ought to be provided. There must also be in place a formal communication system to ensure that all stakeholders have access to timely information about the implementation. This system should be augmented by periodic surveys that tap concerns about concepts, strategies, and resources. And most important, recognizing that implementation is a process not an event, information obtained through monitoring processes must be cycled back into the implementation process so that modifications may be made by the right people at the appropriate levels.

Finally, a sound monitoring system should make some provision for determining the extent and degree to which student learning is altering as a result of the curriculum change. The process for this determination requires consideration at the earliest stages of planning.

As a result of these experiences, the district is developing a revised model for implementation which departs from both the PREP model and the centralist advisor model. The latter, although highly effective, is not economically feasible for the majority of major implementations. Instead, although we will be looking at the school as the unit of curriculum change, the focus for inservice will be at a zonal level. And inservice training will be provided, not only for teachers and their role in bringing the curriculum into place, but also for principals and their role as supervisors and managers of implementation.

Footnote:

[1] Fullan, Michael and Park, Paul. Curriculum Implementation: A Resource Booklet. Toronto: The Minister of Education, 1981.

MANAGING IMPLEMENTATION IN A SMALL DISTRICT

Elizabeth Welch Wilson
Nelson School District

The district which is the setting for this description of implementation enrols about four thousand pupils, with a teaching staff of about two hundred and thirty teachers. There are sixteen elementary and five secondary schools, the furthest of which are 80 miles apart (north to south), and 35 miles (east to west). Of these schools, seven have four or fewer classes. The distances involved, the individual characteristics of different small schools and communities, and the weather during the winter months make centralized activities difficult and somewhat ineffective.

Until the Ministry of Education began recently to increase the rate of change in curriculum and related materials, implementation activities occurred as they were deemed necessary. They frequently involved making sure that teachers had access to programs and materials as they became available, but left decisions regarding use and adaption to individual teachers and principals. Because schools in this district enjoy a great deal of autonomy, programs were adopted to the extent that teachers felt they would be useful in meeting the needs of the students, and to the extent they could be successfully incorporated into their current programs.

This sytem of school-managed implementation would likely have continued had not the Ministry of Education initiated changes in the language arts curriculum, accompanied by some major changes in materials for reading instruction. This district's decision, made by central office staff in consultation with various teacher groups, was to provide one reading series with various support materials, for most students in regular classes. In addition, the accompanying summative testing program would also be used throughout the district.

The negative reaction of elementary teachers, as they attempted to incorporate these materials, was strong and vocal. After much discussion, a decision was made to initiate a new position in the district in order to help teachers make the transition to the new reading program. The major purpose of establishing this position was to provide someone to act in a consulting and coordinating capacity, and particularly to be in direct and frequent contact with the teachers who were attempting to incorporate the new reading materials into their language arts programs. By the time the position became operational, in September 1980, the responsibilities had expanded to include assisting in the implementation of all new and revised programs for the ministry. This paper will discuss the incorporation of implementation activities into a small school district spread over a wide area. It takes the position that if there is an overall aim of implementation, it is to foster an atmosphere in which change is anticipated, and in which people are generally amenable to change.

A brief description of on-going implementation activities does not easily convey the emotions which were displayed in the district during this process. The following discussion extracts key ideas and focuses on milestones along the way, giving the illusion of orderly progress. In any given situation, however, progress was difficult either to identify or to measure. In retrospect, implementation seems a much more rational process than it did when living through the day-to-day realities.

Although there had been strong support for assistance to teachers trying to implement new programs prior to beginning the process, the year 1980-1981 was spent in a learning atmosphere with everyone attempting to clarify just what, in practical terms, implementation would mean and what impact district-level coordination would have on the traditional autonomy of principals and teachers.

Compounding this problem was confusion surrounding the introduction of newly prescribed language arts materials. Conflicting messages came from several directions -- the ministry, district office staff, principals, and fellow teachers. It was some time before enough was known about the materials and implementation processes that a degree of consistency could be assured.

The initial planning for teacher-directed assistance took place at the beginning of September 1980. It involved a general overview of the range of professional development activities which might be needed, along with a schedule of major curriculum changes which could be anticipated for the next two years. This planning was done primarily by the curriculum coordinator, after individual discussions with various people within the district. It was designed to address the most pressing concern voiced by teachers at that time, which was lack of knowledge of the new reading programs — they wanted to know what was involved, what instructional options they had, and how they could put a program into effect without disrupting their classes.

Many principals and teachers felt that changes mandated by the ministry taxed the economic resources of the school, the energy of teachers, and the harmony of classroom and school. In addition, they felt they had lost their decision making power. At about this time, ministry guidelines stated the intended goal of implementation: "to enhance student learning and the quality of life in classrooms".

The problem, then, was to begin some form of constructive dialogue so teachers would know that they were vital to the implementation process, that they were the key implementers, and that the decisions they made would directly affect the quality of life in classrooms. A step in this direction was made by planning all of inservice sessions for the reading and language materials on a school-by-school basis.

These meetings were designed to orient teachers to the use of materials and to discuss issues such as unit planning and teaching strategies; but they were also important because they provided a vehicle for establishing a relationship with schools wherein problems and concerns could be discussed in a supportive group atmosphere. Teachers were assured of their importance in adapting programs to the needs of their students; they were encouraged to voice their concerns and criticisms in such a way that some positive action might be taken to remedy the shortcomings of the program.

Many principals responded by becoming aware of the problems and needs of their staffs, by channeling concerns to those people most able to respond, by defining and providing for school inservice needs, and by arranging for staffs to examine critically the new materials.

This general approach has been followed with other groups in the district and with other programs. Meetings with small groups of teachers are called to examine new materials, to choose among options, to share information, and to become oriented to changes. These meetings which have frequently been called over the past two years provide people with information for the management of instructional changes for their students.

A different attempt to establish on-going communication with schools and to increase the teachers' awareness of change and implementation involved a request for a curriculum representative from each school. In addition to maintaining communication between the school and district staff, one responsibility of these people was to meet with other staff members and the principal of the school, as necessary, to discuss problems, conflicts, and concerns regarding new program implementation and to make recommendations for support and assistance.

This recommendation was almost unanimously rejected by principals. In retrospect, it is not difficult to determine the cause of this rejection. Principals felt the immediate needs were concrete and specific; but they felt implementation needs would not be met by general discussion. In addition, this concept was not congruent with current or traditional roles of principals and teachers in respect to implementation. By the end of the 1980-1981 school year, some of the original ideas contained in this proposal were partially met by two other implementaion activities: the development of on-going relationships with individual schools to address specific needs as chosen by the school staff; and the institution, in 1981-1982, of a curriculum committee with district-wide membership.

Both the school-based inservice sessions and the on-going dialogues with individual schools were the most valuable activities in the beginning stages of implementation. They provided for exchanges of information, for participation among staff members, for opportunities to tailor inservice and professional development activities to staff needs, and for minimal time spent in travelling to and from a central location.

Problems, however, continue. The initative for on-going discussion lies, ultimately, with the school staff and principal. Some schools choose not to be involved except at the basic level of information. One of the drawbacks is that the process increases the sense of each school as an independent entity with minimal district involvement. At the secondary level, where activities frequently take place within a department, or among teachers from one department in all secondary schools, there is little integration within the entire school. In addition, many people are still uncertain, in general, of the meaning of implementation and, in particular, of the responsibilities of the curriculum coordinator.

Another major area is that of materials and learning resources. We have close and constructive communication, at the district level, among the resource centre director, the district librarian, and the curriculum coordinator. As changes in programs are anticipated, we are able to provide materials within the resource centre and to advise schools of changes affecting library collections. Unfortunately, while we now have the benefit of sufficient lead-time from the ministry, we are suffering from severely diminished library budgets.

An additional major source of learning resources for our district is the provincial curriculum resource centre, which supplies teacher-developed materials. Teachers recognize the quality of these resources.

The brevity of this report necessitates a simplified view of the processes described. Many people have been involved in helping our district's teachers implement new programs. We have been able to send a great number of teachers to ministry workshops and summer institutes. These people return to act as resource teachers. The Ministry of Education staff, with both long-term planning and readily-accessible information, provide continuity in program development and implementation. They also build a network of knowledgeable people from whom districts can receive support and share understanding of problems and strategies.

Our district is far from being at the forefront of implementation activities. We have, however, moved from a vaguely formed idea that implementaion requires more than hoping for the best, to a system that is able to involve an increasingly sophisticated teaching staff in planned implementation. We have learned that implementation is a long-term process, that a sense of urgency should not take precedence over careful planning. We have learned that implementation requires attention to a wide variety of areas, that it must involve many people. There are still many things we must learn, but we are at least in a situation where we are able to learn, not only from our own mistakes — which have been many — but also from the experiences of others.

As a small district we rely a great deal on the resources that other people have developed. Although we have some schools which lack the materials and facilities found in larger districts, we are benefiting from the developing ability of school staffs to identify their professional needs and to work toward meeting those needs.

ELEMENTARY DEPARTMENT HEADS AND PROGRAM LEADERSHIP

Mike Mooney and Dave Smith
Coquitlam School District

In the Coquitlam School District vice-principals are no longer assigned to elementary schools. Instead each elementary school is assigned from one to five department heads, depending on school size.

This administrative re-organization is an attempt to respond to the changing and increasing demands on the elementary school. The demands are particularly intense in the areas of curriculum, program implementation, evaluation, learning resources, personnel development, special services, and school activities. The re-organization is designed to meet three objectives:

1. To increase support services to pupils, teachers, principals, and parents;

2. To share a larger number of leadership opportunities and responsibilities amongst teachers;

3. To improve district and on-the-job professional development programs for persons holding positions of special responsibility.

After discussion and some amendments by the principals' group, the district teachers' association, and trustees, the plan was approved in April 1981. Further changes have been based on our first year's experience.

The schedule came into effect on July 1, 1981, except for schools which had a vice-principal assigned as at that date; in such cases the school retained the vice-principal until June 30, 1982.

In September 1981, in forty-six elementary schools, there were six vice-principals and seventy-seven department heads. In September 1982, in forty-seven schools, there were eighty-nine department heads.

The specific duties department heads are assigned vary from school to school. Some of the categories developed were: physical education activities; annex supervisor; special programs; general; curriculum refinement and coordinator of learning resources; intermediate; primary; fine arts; materials; administration; French instruction (immersion and/or grades 5, 6, and 7 French-Second Language).

To help schools in implementing the plan a number of documents were distributed:

- Board Policy Statement (see Appendix A);
- Administrative Re-organization in Elementary Schools;
- Department Heads--District Expectations for the Role (see Appendix B);
- Criteria for Department Heads;
- Selection Process for Assignment of Elementary Department Heads, 1981-82;
- Some Administrative Procedures re: Assignment of Elementary Department Heads, 1981-82; Elementary Department Heads--Recommendation for Appointment Form.

These directions/suggestions provided answers to such questions as: What are the objectives of this reorganization? What is the perceived impact on schools? What happens to present vice-principals? What duties should be expected of department heads? Who is eligible for selection?

The issues were reviewed with principals and various models were studied prior to implementation of the plan.

An orientation session for department heads was presented prior to school opening in September 1981. The suggested agenda was published in June with an invitation to participants to suggest changes or additions. The orientation, over one and one-half days, covered a wide range of topics:

- Policy, expectations, and potential of the position;
- District services and personnel;
- Pupil testing, grading, and reporting;
- Learning assessment programs -- district and provincial;
- Curriculum resources -- district and provincial;
- Curriculum implementation and inservice;
- Program evaluation;
- District policies and procedures.

Obviously, this array of subjects could not be addressed in depth in the time available: the intention was to provide adequate information and to give the opportunity for more intensive analysis of interest areas at later sessions. Arising from the orientation session was a strong liaison between department heads and district staff. This contact person in each school helps greatly in the transmission of information.

A component of the implementation of the department head program consisted of an evaluation by means of a questionnaire. The members of the committee who developed and administered the questionnaire consisted of: two members of the central school board office, two elementary school principals, and two department head teachers. It was completed by central board office staff, all elementary school principals involved with the program, all newly appointed elementary school department heads, and a random sample of the teaching staff. The return rate from each of these four groups was very high, with 90% of the department heads, 88% of the principals, 81% of the teachers, and 80% of the district staff completing questionnaires.

The questionnaire gathered information concerning whether or not, and why, the respondents felt that the expectations for the program were being met; duties that the department heads were perceived (by principals and teachers) as performing; an assessment of the criteria of qualifications required of applicants to department head positions; suggestions as to further assistance that the district could provide to facilitate the department head's professional development; and an examination of the promising aspects and serious concerns identified since the implementation of the program.

A number of recommendations were framed and submitted to the superintendent of schools. The primary finding of the questionnaire was that the respondents were in favour of the newly implemented Department Head Program, with 87% of the respondents stating that the program was meeting the stated expectations: 1) offering a large number of leadership opportunities for elementary teachers; 2) providing improved district and on-the-job professional development programs for persons holding positions of special responsibility; and 3) increasing support services in the school of benefit to pupils, teachers, principals, and parents.

APPENDIX A: BOARD POLICY STATEMENT

Elementary Department Heads

Rationale:

Demands on all elementary school personnel have increased greatly in recent years, particularly in the areas of curriculum program implementation, evaluation, learning resources, personnel, special services and school activities. Additional positions of special responsibility are needed in each school to assist the principal with program and operational responsibilities, to provide support services to staff which will benefit pupils, and to offer leadership opportunities for interested teachers to grow professionally and to share their expertise with their colleagues.

Policy:

Upon application from the principal, and the recommendation of the superintendent of schools, elementary department heads will be assigned in each elementary school.

Regulations:

1. The number of positions available in each school is governed by the following schedule:

0 - 200 fte pupils	1 Minor Department Head
201 - 320 fte pupils	2 Minor Department Heads
321 - 440 fte pupils	3 Minor Department Heads
441 - 560 fte pupils	4 Minor Department Heads
561 - fte pupils	5 MInor Department Heads

1.1 Two minor department head positions may be converted into one major position by the principal.

1.2 Enrolment shall be as confirmed for staffing purposes in the spring.

1.3 The financial equivalent of one minor position may be converted to approved release time for any school year where at least one department head will be assigned.

2. Qualification criteria include:

   2.1 demonstrated ability to provide leadership to organize and to work effectively with others;

   2.2 exhibits a balanced, positive view of public schooling;

   2.3 shows evidence of continuing professional growth;

   2.4 possesses curriculum knowledge and expertise;

   2.5 has a minimum of three years experience as a highly successful teacher with, unless otherwise approved, a full-time school assignment and professional certification.

3. Duties and responsibilities for each position will be developed by each principal in keeping with the district's statement of expectations for department heads.

4. Selection ordinarily will be made from within the school staff. Wherever this is not possible, in the opinion of the principal and zone assistant superintendent, the district's transfer procedures will apply. District expectations, school responsibilities and the application and selection procedures will be communicated to all staff members by the principal.

5. Assignments ordinarily will be for a term of two years. If enrolment is declining in the school, a one-year term assignment will be made for one position.

6. Applications for assignment for the following school year, together with the duties and responsibilities for each position, will be submitted to the superintendent by June 1st.

APPENDIX B: EXPECTATIONS OF DEPARTMENT HEADS

Department heads form part of school leadership and managerial teams and are responsible to the principal for the performance of their duties. They carry out these duties in accordance with the School Act, Regulations, District and School Policies. District expectations include, as appropriate and as circumstances permit, responsibilities in the following areas:

- Orient and assist new staff, substitutes, and student teachers.
- Offer assistance in curriculum refinement and development activities.
- Facilitate program implementation and evaluation.
- Provide consultative services, professional development and assistance on instructional methods and teaching strategies.
- Assist with pupil and course evaluations, grading requirements and reporting practices.
- Coordinate learning resources, materials, and equipment.
- Provide liaison with pupils and parents, feeder schools, counsellors, learning assistance teachers, and others as required.
- Perform administrative routines, maintain records and procedures.
- Assume teaching assignments, specific duties, and projects assigned by the principal.

A DISTRICT LEARNING ASSESSMENT PROGRAM

Tom Wheeler
Coquitlam School District

"Why was a district-wide program of learning assessment started?" As is often the case there were assorted reasons:

1. the School Act;
2. the ministry's "Policy Guidelines on District Assessment Practices" (1978);
3. the implementation of a provincial learning assessment program;
4. a strong desire by our superintendent to make an early start in implementing a district program.

Although the ministry had stated that "each district will have its assessment policy in place by September 1980", Coquitlam's policy was ready for implementation the year before. Major features of that policy were that:

- it complement the provincial learning assessment program;
- it monitor, measure, support, and help improve the district's educational programs;
- it provide feedback to appropriate persons on the extent to which the educational goals of the district are being met;
- testing be conducted on a district-wide basis every fourth year involving all students;
- an appropriate number of ad hoc assessment development committees be struck;
- a testable set of objectives be defined for the subjects and levels using the available resources;
- as much as possible, test items selected be criterion referenced to curriculum goals, and that objectives reflect local emphasis;
- customarily, tests be of the multi-domain type;
- test analysis and interpretation be as succinct as possible in order to be of maximum value to all involved;
- appropriate annual budgetary allocations (e.g. for release time, printing, etc.,) be made available to implement the district learning assessment program.

The following task outline gives some idea of the sequence of steps involved:

WHOLE COMMITTEE

1. Dealing with provincial and district terms of reference.
2. Standardizing formats and procedures for achieving inservice needs.

SUB-COMMITTEES

3. Writing the test description;
4. Designing test items;
5. Designing the pilot tests with directions for administration and scoring;
6. Setting date for administration/return of pilot tests;
7. Revising pilot tests (completion).

WHOLE COMMITTEE

8. Standardizing formats and procedures.

SUB-COMMITTEES

9. Completing final instrument with directions for administration;
10. Arranging for production, administration/return, scoring, and analysis.

INSERVICE FOR TEACHERS/PRINCIPALS

11. Developing an understanding of the meaning of assessment test results.

WHOLE COMMITTEE

12. Making recommendations and providing information for the superintendent, principals, and teachers.

The assessment development committee started working on test construction in the fall. Pilot tests were ready for administration in March of the following year. The final instructions were produced, distributed, and administered in early June and the results made available before the end of school. A district interpretation of the results was completed in the fall and presentations made to district staff/principals and teachers after Christmas. Inservice sessions for principals and teachers on how to interpret and use the results were also provided. This complete cycle from test construction, administration, scoring and analysis, interpretation, and inservice was completed within eighteen months.

Budgetary constraints were involved. Some of the practices adhered to were:

- three teachers at each grade level were included on each assessment development sub-committee;
- a carded system for item bank collection, as per the following example, facilitated the typing of the final instrument;

FORM 'B'

GRADE ________ SUBJECT ____________________ CURR.REF. ______________

DOMAIN ____

OBJECTIVE ______________________________ COGNITIVE LEVEL ________

ITEM # ______ FORM ______

____

____

____

____

____

____

1____1 Answer [ ]

2____2

3____3

4____4

5____5

- assessment results were used to indicate the extent to which system-wide learning is being achieved in a particular subject area; to provide guidance for the development, implementation, and modification of curriculum; and to identify areas of the district's educational programs which require inservice.

The following procedural guidelines were also established:

- the supervisor of curriculum/assessment be responsible for the development and implementation of the district's assessment program;
- a district assessment advisory committee be formed;
- the first priority be to develop and conduct assessments in the "core" areas of the curriculum;
- assessments may be carried out at the request of the board or the superintendent;
- teachers be directly involved in the development of assessment instruments, the procedures for administration, and the analysis of the data;
- normally, assessment instruments be developed on a criterion referenced /curriculum referenced model;
- the use of assessment data be made available as pre-arranged;
- assessment tests need not be administered to all pupils at all grade levels to provide system-level data, but periodical grade assessments and sampling procedures be regarded as indicators of district performance;
- an information program be developed in conjunction with district assessment, such that trustees, staff, and the public understand the nature of the program and the meaning of the results.

An overall plan for the implementation of the program was designed:

- a strict timetable stating subjects, grade levels, and the year for testing;
- production handled within the district office;
- a timetable for distribution, return, and processing of all answer sheets/test booklets;
- arrangements with Educational Research Institute of British Columbia (ERIBC) for scoring and analysis.

In addition, to ensure the best possible product we involved a ministry consultant at the test description/item design stage. Further, we involved the Provincial Learning Assessment Branch by having them critique the program and suggest improvements at the piloting stage. This advice was valuable for modifying question stems, distractors, and format before the production of the final instruments. ERIBC, our technical advisors, also assisted us with advice that would facilitate scoring efficiency and, at a later stage, with advice on how to interpret and use the statistical printouts. Throughout the entire process the district's assessment advisory committee examined, commented upon, and made recommendations to the superintendent on the degree of acceptance they felt the program, instruments, manuals, administration, and statistical returns would have at the school level. Our interpretation committees also provided advice concerning those areas of curriculum where there was an identified need for inservice; they also pinpointed those domains which required a greater or lesser emphasis, and at the item/objective level where additional instructional attention was necessary.

Recommendations for improvement included:

- the number of sittings/length of tests;
- the use of several booklets to provide sufficient coverage;
- the time allotments for the course;
- the percentage of time allocated to domains;
- the appropriate type and picture size;
- the budget, e.g. more time for construction; interpretation, etc.;
- the commercial printing;
- the use of consultants;
- the number of choices;
- the use of a minimal number of items for each strand;
- the weighting of distractors;
- the time to administer.

Some factors essential for successful implementation of an assessment program are:

- provision of a sufficient budget;
- provision of a realistic timeline;
- provision of adequate information for the teacher;
- use of outside expertise as needed;
- implementation of the recommendations.

Reference materials are available which provide details on 1) the district's policy and practice, 2) school use of results of district assessments in mathematics (1980) and reading (1981) and, 3) interpretive reports with recommendations to the superintendent.

Appendix: Assessment Practices in District No. 43 (Coquitlam)

1. Policy Guidelines (1978)
2. District Learning Assessment Policy (Implemented 1979), in addition to classroom student evaluation practices, Provincial Classroom Achievement Tests, grade-wide tests, standardized tests, etc.)
3. Superintendent's Circular (79-08-13)

   Procedural Guidelines --> Program
4. District Assessment Advisory Committee
5. Assessment Development Committees (Ministry consultants involved, and feedback on pilot items from the Learning Assessment Branch)
6. Testing Program (Example: Mathematics 3, 7, 10 — 1980)
7. Scoring and Analysis (ERIBC)
8. District Interpretation Report --> Superintendent --> School Board
9. Presentation to Administrators (information and group discussion 6-9 months later)
10. Using the Statistics -- Inservice to Schools (helping principals and department heads in interpretation and follow-up)
11. Involvement of District Staff (Supervisors, Coordinators, Resource Teachers) in Curriculum Development/Refinement
12. Discussion with Department Heads (Where and how can improvements be made?)
13. Outcomes and Improvements (e.g., Mathematics 1980--A Junior Secondary School's Improvement Program)
14. Achievements

CONCLUSION: UNDERSTANDING IMPLEMENTATION EXPERIENCES

Walter Werner
Centre for the Study of Curriculum and Instruction
University of British Columbia

Enhancing student learning and improving the quality of classroom life are the raison d'etre for program implementation. One way to study implementation, with an eye to its improvement, is to examine reflectively the experience of school personnel who use new programs. Such cases provide depth and richness of detail for entering vicariously into the implementation process and grasping what is at stake when classroom changes occur.

There are cautions to keep in mind, however, when reading case studies. Because they highlight what happened in unique school contexts, and because all contexts differ to varying extents, replicability of cases is not possible nor is one-to-one correspondence. Nor do they tell what we should or should not do in our own situations; these descriptions are not prescriptions for action. Each case stands on its own as a record of what happened, as an intrepretation of what implementation meant, and as a description of what it involved. The value of case studies lies in their diversity and individuality, not in their being a compendium of generalities .

Because of this diversity, case studies provide a foil for thinking about implementation. Similarities and differences across cases are a mirror for critical reflection, allowing us to raise questions concerning our own context, to formulate alternative and new directions for planning, and thereby, to improve our own program implementation which is always situation specific.

The case studies contained within this book display some important things about program implementation. Although many of these features could be discussed, only two are selected here because of their reported saliency for school-based implementation; across all of the cases, the process of change was characterized by advocacy and planning.

Advocacy

Successful implementation did not depend entirely upon the source of the innovation or who made the decision to adopt. Some innovations were inititated and developed at the school, whereas others came via the ministry or district office or elsewhere. Regardless of their source, however, new programs depended for their success upon advocates within the district and within the school. Individuals saw the need for the innovation, believed in its potential, and made time and priority commitments. In all cases the principal was supportive and involved in the implementation planning and activities, but in a variety of ways--no stereotypical role was evident.

On closer examination, the nature of advocacy differed across the cases and to some extent differentiated implementation as being staff intensive, personality intensive, or expert intensive, although considerable overlap of these three approaches was evident:

1. Staff intensive approaches focused implementation activities towards enhancing people's capacity for bringing about their own change. Professional development was emphasized at the school level, thereby increasing teacher expertise and pedagogical skill in using the innovation. Energies and resources were allocated to enlarging a staff's knowledge, confidence, and competence by involving teachers in decisions concerning 1) what should be done about and with the innovation at the school; 2) what their own professional needs were, and how and when these should be addressed; and 3) what appropriate classroom materials should be selected. Usually initiated by principals, and always dependent upon their support as its major advocate, this approach not only encouraged genuine teacher commitment, understanding, and ownership of the innovation, but developed leadership to an extent that staff members could then work with other interested schools in the district. Starting from a school staff, the implementation thereby moved outward.

Politically and educationally this approach seems desirable, highlighting the importance of staff development and principal advocacy in school-based implementation. The teacher was assumed, rightly, to be the cornerstone of all change and the principal its major supporter.

2. Personality intensive approaches focused around the charisma, ascribed authority, or high profile activities of a committed individual such as a district consultant, helping-teacher, or subject-area specialist. Because he or she was often the developer of the innovation, this individual was associated with it in the eyes of teachers, and was primarily responsible for the implementation planning, conducting of inservice, and solving of emergent problems. Leadership was defined and highly visible.

Success of this implementation approach seems dependent largely upon the individual's persistent advocacy and ability to provide continual leadership in maintaining district-wide support and teacher enthusiasm for the innovation. However, it is possible that once he or she moves out of this role, a leadership vacuum might result, thereby jeopardizing implementation.

3. Expert intensive approaches relied upon external agents from outside the district to provide leadership direction for program implementation. Usually based at a university, this person furnished change procedures and inservice packages assumed to be replicable across school districts.

There is evidence in these cases that external 'experts' are utilized to advantage when combined with staff or personality intensive approaches, and when supported by strong district and school advocacy. None of the cases relied upon the external expert as the major advocate of implementation, probably for an obvious reason: the intent of implementation in most cases was to strengthen the school's capacity for change through local leadership, staff development, and self-direction.

Planning

None of these examples of implementation "just happened" without explicit and ongoing planning by someone or a group. At minimum this planning attempted to clarify and match the innovation (its characteristics and implications) with a specific context (availability of resources and time, strengths of school personnel, student needs, and other school programs). All cases showed considerable ingenuity, flexibility, and realism in planning, and did not rely upon "handbooks" of procedural dogma.

Since school-based planning was central to most of the cases, worth noting are some commonalities; namely, four factors to which explicit attention was given, weighing one against the other when deciding what should be done. First, planning focused on the innovation: what it was and how it differed from the school's current program. Second, planning was oriented to the school's milieu: current programs, available time and resources, as well as community concerns that defined potential parameters within which implementation was to occur. Third, planning built upon school personnel: teacher strengths, perceived student needs, and administrator commitment to program change. Finally, planning did not take place in a vacuum, but drew upon a variety of other implementation experiences: reflection upon past experiences within the school and district, visitations in other schools, consultation with university or ministry personnel, and reading about experiences documented within the research literature. The innovation was clarified and understood contextually in terms of school milieu and personnel, and defined through decisions about the school's priorities. Of course many other things were also considered by planners, but these four commonalities across the cases defined planning in context oriented terms. Plans, therefore, changed, and planning remained ongoing.

Seen another way, these four commonalities can be stated as questions typically addressed through school-based planning. Plans dealt in some manner with these considerations:

1. What about TIME? At bottom line, implementation was time-intensive. Even with what seemed to be small changes, in all cases the innovation put greater demands upon planning lessons, organizing programs, developing classroom materials, experimenting with new learning activities, and reflecting on what was done. Obviously new programs were not "added on" without some adjustment in the use and allocation of time: planning to start small and to phase in the implementation; planning to give less priority to other programs or current activities so that more time would be available for implementation of the project.

At the level of the teacher's own planning, there was variation in how time was used. Some teachers implemented from the beginning of the year, others introduced cumulative changes over the course of the year, whereas others preferred to wait for a couple of months before doing much with the innovation.

2. What about PRIORITIES? Planning implementation clearly required that a school staff establish their own priorities among many competing demands and expectations which, when seen as a totality, were unrealistic or contradictory. These changes often raised problems for the school: too many changes may have been asked for at once; some changes may have presented contradictory implications for the school's timetable or resources; demands on teacher time may have been ridiculous in the light of other things that also needed to be done; and some of the good things already happening in the school may have been jeopardized by new programs. When faced with several new programs, or even with considerable change within one program, all demands could not be dealt with concurrently because schools simply did not have unlimited energy, time, and resources. Through planning, therefore, school staffs had no choice but to decide which changes were worthwhile and possible of realistic implementation now, and which would be left until next month, next year, or even rejected altogether.

3. What about STARTING POINTS? Not every school (or teacher) started at the same place and in the same way. Nor did everyone understand (or need to understand) to the same extent the entire innovation and its implications. Implementation started as staff members chose which part of the innovation they could begin using in classrooms; this selection depended upon a number of criteria:

- decisions took into account existing school strengths. Priority was given to implementing immediately those changes that best fitted current teaching strengths, library resources, space and physical facilities, staff interests, and other worthwhile programs. These starting points allowed the school to build and capitalize on the good things already being done or already available;
- decisions took into account perceived student needs. Starting points were judged by staff members in terms of perceived benefit for student learning and interest;
- decisions took into account administrative support and realistic demands upon teacher time. How resources and time were allocated determined the point at which implementation could begin.

In short, implementation did not have any necessary starting point in terms of how much or what part of a program would be taught.

4. What about HELP? Whenever a school put into practice some part of a new program, questions and problems arose during the normal course of implementation. The most important and first resource for dealing with these school-specific problems usually was the staff's collective experience, and rightly so, because no one else from outside the school understood the problem in the same way. Discussion was ongoing, particularly where planning at the school was collegial, mutually involving teachers and administrators who had a

stake in the decisions. Some form of power sharing around decisions enhanced participants' understanding of the innovation and what was involved in its implementation.

Also, as they arose, specific questions and needs became the focus for planning relevant inservice activities or for seeking various kinds of help. Here again variation was evident: outside 'experts' were brought into the school, teachers went to conferences and then shared the information with colleagues, and observations within another school allowed for useful exchanges of ideas and experiences.

Conclusion

Two striking differences among the cases are evident. First, there is no single definition of program implementation shared by the authors. Various concepts and orientations are implicit in the descriptions, and this diversity forces readers to clarify their own conceptual biases. Second, implementation activities in elementary schools differ from secondary schools, probably for a variety of organizational and social reasons: context is central to the meaning and character of program implementation.

These case studies are not replicable or generalizable as "models for" implementation. Their value to planners and students of implementation lies in their documentation of the concrete and the unique. Individually or collectively these examples can be compared with the reader's own implementation experiences, understanding the one in the light of the other. As this comparison raises questions and new ideas for the reader, the cases serve the purpose of stimulating a critical and analytical reflection of implementation practice and wisdom.

CONTRIBUTORS

JACK BLOCK

Principal of Port Moody Senior Secondary School in the Coquitlam School District. During his time as a science teacher and principal, Jack has participated in curriculum development activities including, since 1977, design of curriculum for computers.

BERNIE BOWKER

Teacher at Esquimalt Senior Secondary School in the Victoria School District. Bernie has teaching and administrative experience. He has worked both at the district and provincial levels planning programs for gifted students. Bernie presently is coordinator of the 4-C District Senior Secondary Gifted and Talented Program.

BEVERLEY BUCHANAN

Director of the Program Implementation Services Branch, Ministry of Education. Beverley has school, district, and provincial administrative experience. She is particularly interested in school-based innovative programs.

JIM CONNOR

Principal of Davie Jones Elementary School in the Maple Ridge School District. Jim has taught at the elementary school level and was supervisor of instruction in Maple Ridge. Throughout his career in education Jim has been interested in approaches to improve instruction.

HOWARD CROSS

Coordinator of language arts for North Vancouver School District. Howard has taught at elementary, secondary, and university levels and has been involved in the development of the North Vancouver writing program. He currently is involved in programs related to computer-assisted instruction.

VERN ELLIS

Principal of Rochester Elementary School in Coquitlam School District. Vern has been involved in the development of assessment policy, setting of assessment criteria, and utilization of information from district and provincial assessments.

BRYAN EYJOLFSON

Principal of Kingswood Elementary School in the Richmond School District. Bryan has elementary teaching and administrative experience and has been involved in facilitating the implementation of the Richmond Writing Project.

RON FENWICK

Director of instruction for West Vancouver School District. Ron has elementary teaching and administrative experience in both Vancouver and West Vancouver. He presently has district curriculum and professional development responsibility, K-12.

GARY HARTLEY

Assistant coordinator of program support services within the curriculum services department for Prince George School District. Gary has taught music at the secondary level and has been coordinator of music and fine arts in Prince George. He conducted numerous fine arts and teacher effectiveness inservice sessions.

ANNE HILL

Teacher in Prince Rupert School District. Anne has classroom, library, and district-level teaching experience. She has been an itinerant teacher of gifted students and a member of the district resource team for school-based enrichment programs.

HARRY HUFTY

Director of curriculum services for Prince George School District. Harry has secondary teaching and administrative experience. He has been involved at both district and provincial levels in curriculum development, implementation, and evaluation activities.

JANE HUNTER

Teacher at Sidaway Elementary School in Richmond School District. Jane has taught in several Richmond Schools and is presently language arts coordinator at Sidaway.

LINDA KASER

Elementary language arts coordinator for Richmond School District. Linda has taught at elementary, secondary, and university levels and presently is coordinator of the Young Writers' Project.

RON KILBEY

Supervisor of curriculum and teacher services for Prince Rupert School District. Ron has elementary and secondary teaching experience as well as school and district administrative experience.

HAL LINDSAY

Principal of Richmond Senior Secondary School in Richmond School District. Throughout his career in education Hal has been involved with special education students.

FRANCES LORENZ

Teacher at Kingswood Elementary School in Richmond School District. Frances has extensive school and district curriculum development, implementation, and assessment experience. She has a been a school-level curriculum coordinator for the past two years.

MARY ANN LYALL

Assistant coordinator of program support services within the curriculum services department for Prince George School District. Mary Ann has elementary teaching and administrative experience as well as district helping teacher and supervisory experience.

BARRY MacDONALD

Coordinator of audio-visual services for Vancouver School District. Barry has elementary, secondary, and university level teaching experience and has been involved in the use of technology in instruction since 1972.

SHIRLEY McBRIDE

Special services supervisor for Langley School District since 1978. Shirley has been a provincial special education coordinator in Saskatchewan and has taught courses at SFU and UBC in learning disabilities and in organization and administration of special programs.

MURRAY MARTIN

Teacher at Port Moody Senior Secondary School in Coquitlam School District. Murray has taught summer computer science programs for teachers and students. He presently is president of the Coquitlam Computer Users' Local Specialist Association.

MARY ANN MIKITUK

Teacher at Kingswood Elementary School in Richmond School District. Mary Ann has primary and intermediate teaching experience in both Alberta and British Columbia. She presently is teacher-librarian at Kingswood School.

PETER MOODY

Assistant professor, Faculty of Education and School of Education (Recreation), University of British Columbia. Peter has school and university level teaching experience in British Columbia, Manitoba, Oregon, and England. For the past three years he has been consultant to Maple Ridge School District for a quality daily physical education program.

MIKE MOONEY

Supervisor of instruction and personnel for Coquitlam School District. Mike has teaching experience at elementary and secondary levels and has been principal of both English speaking and French-immersion schools.

JOHN MUNSON

Vice-president of Happy Valley Elementary School in the Sooke School District. John has taught in Kamloops and in Sooke School Districts. He presently is doing post-graduate work at UVic in curriculum studies and implementation.

SEBASTIAN NUTINI

Supervisor of instruction for Trail School District. He has elementary and secondary teaching experience and elementary and district administrative experience. He has been involved extensively with curriculum development and implementation activities.

JOHN PARRY

Principal of Pitt Meadows Elementary School in Maple Ridge School District. During the past three years, John and his staff have been involved in two implementation projects: daily physical education and teacher effectiveness.

JOE RANALLO

English department head at J.Lloyd Crowe Secondary School in Trail School District. Joe has worked at the district and provincial levels in English curriculum development and implementation activities.

BEV SAUMIER

Teacher at Brookswoods Junior Secondary School in Langley School District. Bev has taught in Manitoba, Ontario, and British Columbia schools and has been a special education teacher for the past six years.

ALFIE SMABACK

Teacher aide at Brookswood Junior Secondary School in Langley School District. Prior to becoming a special education aide, Alfie was an elementary teacher aide and teacher.

DAVE SMITH

Department head at Pleasantside Elementary School in Coquitlam School District. Dave's post-graduate work was on the role of the principal in implementation.

BOB TAMBLYN

Vice-principal of Arthur Stevenson Elementary School in Kamloops School District. Bob has had teaching and administrative experience in Cariboo-Chilcotin, Prince George, and Kamloops School Districts. He has been involved in effective teaching programs in Prince George and Kamloops.

BARRY UNDERWOOD

Teacher at Campbell River Junior Secondary School in Campbell River School District. He is president of the Computer Users' Provincial Specialist Association and is the British Columbia representative to the International Council of Computers in Education.

ALAN WARBURTON

Principal of Sidaway Elementary School in the Richmond School District. Alan taught in England and in the Bahamas, as well as in Peace River South and Richmond. He presently is involved in implementation of writing and mathematics problem solving programs.

LINDSAY WATSON

Teacher at Kingswood Elementary School in Richmond School District. Lindsay has school, district, and provincial level curriculum development and implementation experience.

WALT WERNER

Associate professor at the University of British Columbia. Walt teaches at the Centre for the Study of Curriculum and Instruction and has a research interest in program implementation.

TOM WHEELER

Supervisor of curriculum assessment for Coquitlam School District. Tom has taught at elementary and secondary levels in England and in British Columbia and has school and district administrative experience.

JENNY WHITE

Teacher at Queen Charlotte Elementary/Secondary School. Jenny has primary and intermediate teaching experience. She presently is involved in the young writers' project.

ELIZABETH WILSON

Curriculum coordinator for Nelson School District. Elizabeth has elementary and secondary teaching experience as well as district special services and curriculum experience. She presently is coordinating curriculum activities, K-12.

MARGARET WREGGITT

Principal of Mouse Mountain Elementary School in the Nechako School District. Margaret has taught in five Canadian provinces at the elementary and junior secondary levels. She has school and district administrative experience.